1FID: 00324310 CHEMISTRI DATE: 10/22/02

VER DATE: 1994-05-25 MATERIAL SAFETY DATA SHEET TIME: 19:02:40

PAGE: 0001

SECTION 01: CHEMICAL PRODUCT & COMPANY ID

PRODUCT PRIMARY NAME: ISOPROPYL ALCOHOL 99% ANHYDROUS

ALL SYNONYMS: GM SENSOR KIT HOT MELT ADHESIVE STICKS

ISOPROPANOL

ISOPROPYL ALCOHOL 99% ANHYDROUS

SEC-PROPYL ALCOHOL

2-PROPANOL 25645365 25645370 25645389 25645390

SAFE USE CATEGORY AND DESCRIPTION: 02 -SOLVENTS - FLASH POINT: < 100 F

LAST UPDATED DATE: 1994-05-25

MANUFACTURER'S ID (MID): 000530947

MANUFACTURER'S NAME: HYDRITE CHEMICAL CO

MANUFACTURER'S EMERGENCY PHONE NUMBER/TEXT: US 414-277-1311 OFFICE

MANUFACTURER'S MAILING ADDRESS:

300 N PATRICK BLVD DRAWER #0948

BROOKFIELD WI 53008-0948

US

CHEMICAL FAMILY NAME: ALCOHOL

MOLECULAR FORMULA: (CH3)2CHOH

SECTION 02: COMPOSITION & INGREDIENT INFO

CAS# FORMULATION W/V CHEMICAL NAME 000067630 =100.0000/ 0.0000% W ISOPROPYL ALCOHOL

THRESHOLD LIMIT VALUE: CAS# 67630: 400 PPM // 400 PPM, 500 PPM STEL

PERMISSIBLE EXPOSURE LIMIT: CAS# 67630: 400 PPM // 400 PPM, 500 PPM STEL

SECTION 03: HAZARDS IDENTIFICATION

PRIMARY ROUTES OF ENTRY TEXT: PRODUCT CAN AFFECT THE BODY IF IT IS INHALED, COMES IN CONTACT WITH THE EYES OR SKIN, OR IS SWALLOWED. IT MAY ENTER THE BODY THROUGH THE SKIN.

EFFECTS OF OVEREXPOSURE - SKIN: MAY CAUSE MILD IRRITATION TO SKIN.
PROLONGED AND REPEATED CONTACT WITH SKIN CAN CAUSE DEFATTING AND DRYING
OF THE SKIN WHICH MAY RESULT IN SKIN IRRITATION AND DERMATITIS.

PROLONGED OR WIDESPREAD CONTACT MAY RESULT IN THE ABSORPTION OF POTENTIALLY HARMFUL AMOUNTS OF MATERIAL.

EFFECTS OF OVEREXPOSURE - EYE: IRRITATING TO EYES. CORNEAL INJURY MAY OCCUR.

EFFECTS OF OVEREXPOSURE - INHALATION: VAPORS MAY CAUSE IRRITATION TO THE NOSE, THROAT AND RESPIRATORY TRACT. INHALATION OVEREXPOSURE CAN LEAD TO CENTRAL NERVOUS SYSTEM DEPRESSION PRODUCING EFFECTS SUCH AS HEADACHES, NAUSEA, DIZZINESS, AND LOSS OF CONSCIOUSNESS. EXTREME EXPOSURES MAY CAUSE OTHER CENTRAL NERVOUS SYSTEM EFFECTS INCLUDING DEATH.

EFFECTS OF OVEREXPOSURE - INGESTION: MAY CAUSE GASTROINTESTINAL IRRITATION. LIQUID INGESTION MAY RESULT IN VOMITING; ASPIRATION (BREATHING IN OF LIQUID INTO THE LUNGS) MUST BE AVOIDED AS LIQUID CONTACT WITH THE LUNGS CAN RESULT IN CHEMICAL PNEUMONITIS AND PULMONARY EDEMA/HEMORRHAGE. MAY PRODUCE CENTRAL NERVOUS SYSTEM DEPRESSION. MAY CAUSE LIVER DAMAGE.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: PRE-EXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

SECTION 3 - OTHER INFORMATION: TARGET ORGANS: EYES, SKIN, RESPIRATORY SYSTEM

SECTION 04: FIRST AID MEASURES

EMERGENCY FIRST AID PROCEDURES - SKIN: FLUSH AREA WITH WATER WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. FOLLOW BY WASHING WITH SOAP AND WATER. DO NOT REUSE CLOTHING OR SHOES UNTIL CLEANED. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION. DO NOT APPLY OILS OR OINTMENTS UNLESS ORDERED BY THE PHYSICIAN.

EMERGENCY FIRST AID PROCEDURES - EYES: IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. HOLD EYELIDS OPEN DURING THIS FLUSHING WITH WATER. CALL A PHYSICIAN IMMEDIATELY.

EMERGENCY FIRST AID PROCEDURES - INHALATION: REMOVE VICTIM TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN. CALL A PHYSICIAN.

EMERGENCY FIRST AID PROCEDURES - INGESTION: IF CONSCIOUS, GIVE TWO GLASSES OF WATER, THEN INDUCE VOMITING BY TOUCHING BACK OF THROAT WITH FINGER. KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO LUNGS. CALL A PHYSICIAN IMMEDIATELY. NEVER INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS VICTIM.

SECTION 05: FIRE-FIGHTING MEASURES

FLAMMABLE LEL: = 2.00 FLAMMABLE UEL: = 12.00

EXTINGUISHING MEDIA: WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE, ALCOHOL FOAM

SPECIAL FIRE FIGHTING PROCEDURES: EVACUATE AREA OF UNPROTECTED PERSONNEL. WEAR PROTECTIVE CLOTHING INCLUDING A NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE-EXPOSED CONTAINERS WITH WATER SPRAY. RUN-OFF FROM FIRE CONTROL MAY CAUSE POLLUTION.

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLAMMABLE LIQUID. A VAPOR ACCUMULATION MAY FLASH AND/OR EXPLODE IF IGNITED. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL TO A SOURCE OF IGNITION. PROCESS HAZARD: SUDDEN RELEASE OF HOT ORGANIC CHEMICAL VAPORS OR MISTS FROM PROCESS EQUIPMENT OPERATING AT ELEVATED TEMPERATURE AND PRESSURE, OR SUDDEN INGRESS OF AIR INTO VACUUM EQUIPMENT, MAY RESULT IN IGNITIONS WITHOUT THE PRESENCE OF OBVIOUS IGNITION SOURCES. PUBLISHED AUTOIGNITION OR IGNITION TEMPERATURE VALUES CANNOT BE TREATED A S SAFE OPERATING TEMPERATURES IN CHEMICAL PROCESSES WITHOUT ANALYSIS OF THE ACTUAL PROCESS CONDITIONS. ANY USE OF THIS PRODUCT IN ELEVATED-TEMPERATURE PROCESSES SHOULD BE THOROUGHLY EVALUATED TO ESTABLISH AND MAINTAIN SAFE OPERATING CONDITIONS.

NFPA CODES:

NFPA FLAMMABILITY CODE = 3 NFPA HEALTH CODE = 2 NFPA REACTIVITY CODE = 1

FLASH POINT TEMPS: = 53.00F FLASH POINT METHOD: TCC

SECTION 06: ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: FLAMMABLE MATERIAL. ELIMINATE ALL SOURCES OF IGNITION. EVACUATE UNPROTECTED PERSONNEL FROM AREA. MAINTAIN ADEQUATE VENTILATION. USE PROPER SAFETY EQUIPMENT. CONTAIN SPILL, PLACE INTO DRUMS FOR PROPER DISPOSAL. SOAK UP RESIDUE WITH NON-FLAMMABLE ABSORBENT MATERIAL. PLACE IN NON-LEAKING CONTAINERS FOR IMMEDIATE DISPOSAL. FLUSH REMAINING AREA WITH WATER TO REMOVE TRACE RESIDUE AND DISPOSE OF PROPERLY. AVOID DIRECT DISCHARGE TO SEWERS AND SURFACE WATERS. NOTIFY AUTHORITIES IF ENTRY OCCURS.

SECTION 07: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: FLAMMABLE LIQUID. STORE IN COOL, WELL-VENTILATED AREA AWAY FROM ALL SOURCES OF IGNITION AND OUT OF DIRECT SUNLIGHT. GROUND ALL EQUIPMENT TO PREVENT ACCUMULATION OF STATIC CHARGE. KEEP CONTAINERS TIGHTLY CLOSED. RELIEVE PRESSURE IN DRUMS WEEKLY. STORE AWAY FROM INCOMPATIBLE MATERIALS. DO NOT STORE IN UNLABELED OR MISLABELED CONTAINERS.

SECTION 7 - OTHER INFORMATION: OTHER PRECAUTIONS: AVOID CONTACT WITH SKIN AND EYES. DO NOT SWALLOW. USE WITH ADEQUATE VENTILATION. AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. WASH THOROUGHLY AFTER HANDLING. AVOID DUST OR MIST FORMATION. DO NOT EAT, DRINK, OR SMOKE IN WORK AREA.

SECTION 08: EXPOSURE CONTROLS - PROTECTION

EYE PROTECTION: CHEMICAL SAFETY GOGGLES. DO NOT WEAR CONTACT LENSES.

RESPIRATORY PROTECTION: IF RECOMMENDED EXPOSURE LIMITS ARE EXCEEDED WEAR: NIOSH-APPROVED ORGANIC RESPIRATOR. NIOSH-APPROVED SELF-CONTAINED

BREATHING APPARATUS. DO NOT EXCEED LIMITS ESTABLISHED BY THE RESPIRATOR MANUFACTURER. RESPIRATORY PROTECTION PROGRAMS MUST COMPLY WITH 29 CFR 1910.134.

VENTILATION: MAINTAIN ADEQUATE VENTILATION. DO NOT USE IN CLOSED OR CONFINED SPACE. KEEP LEVELS BELOW RECOMMENDED EXPOSURE LIMITS. TO DETERMINE EXPOSURE LEVELS, MONITORING SHOULD BE PERFORMED REGULARLY. USE EXPLOSION-PROOF EQUIPMENT. AVOID MIST FORMATION.

PERSONAL PROTECTIVE EQUIPMENT: EYE WASH STATION. SAFETY SHOWER. RUBBER APRON. CHEMICAL SAFETY SHOES. PROTECTIVE CLOTHING.

PROTECTIVE GLOVES (SPECIFY TYPE): NEOPRENE. NITRILE. NATURAL RUBBER.

SECTION 09: PHYSICAL & CHEMICAL PROPERTIES

BOILING POINT TEMPS: = 180.00F

MELTING/FREEZE POINT TEMPS: = - 127.00F

SPECIFIC GRAVITY VALUES: = 0.7900

VAPOR DENSITY VALUES: = 2.1000

VAPOR PRESSURE VALUES/UOM: = 33.0000MMHG

VAPOR PRESSURE TEXT: @ 68 F

PERCENT VOLATILE BY VOLUME: = 100.0000

EVAPORATION RATE VALUES: > 1.40 EVAPORATION RATE TEXT: NBUAC

SOLUBILITY IN WATER TEXT: COMPLETE

APPEARANCE: CLEAR, COLORLESS LIQUID

ODOR: MILD ODOR

SECTION 10: STABILITY & REACTIVITY

STABILITY - CONDITIONS TO AVOID: AVOID CONTACT WITH HEAT, SPARKS, ELECTRIC ARCS, OTHER HOT SURFACES, AND OPEN FLAMES.

STABILITY - TEXT: STABLE

INCOMPATIBLE MATERIALS: STRONG OXIDIZING AGENTS. ALUMINUM. ALKALIES. AMMONIA. CHLORINATED COMPOUNDS. ALDEHYDES. AMINES. HALOGENS OR HALOGEN COMPOUNDS. STRONG INORGANIC ACIDS. ALKANOLAMINES.

HAZARDOUS DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION MAY PRODUCE CARBON MONOXIDE. CARBON DIOXIDE. AND UNIDENTIFIABLE ORGANIC MATERIALS.

HAZARDOUS POLYMERIZATION TEXT: WILL NOT OCCUR

SECTION 11: TOXICOLOGICAL INFORMATION

SKIN EFFECTS: LD50 SKIN: RABBIT - 13000 MG/KG

ACUTE ORAL EFFECTS: LD50 ORAL: RAT - 5840 MG/KG

ACUTE INHALATION EFFECTS: LC50 INHALATION: RAT - 1200 PPM/6 H

CARCINOGENICITY: THIS PRODUCT DOES NOT CONTAIN GREATER THAN 0.1% OF THE

KNOWN OR POTENTIAL CARCINOGENS LISTED IN NTP, IARC OR OSHA.

SECTION 13: DISPOSAL CONSIDERATIONS

SECTION 13. DISTOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: OBSERVE ALL LOCAL, STATE AND FEDERAL REGULATIONS. DISPOSE OF AT AN APPROVED WASTE TREATMENT FACILITY. RECLAIM (RECYCLE) SOLVENT. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE EMPTY CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION.

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SECTION 14: TRANSPORT INFORMATION

DOT INFORMATION: DOT LABEL: FLAMMABLE

SHIPPING NAME: ISOPROPYL ALCOHOL

HAZARD CLASS: 3 (FLAMMABLE LIQUID)

U.N. CODE: UN 1219