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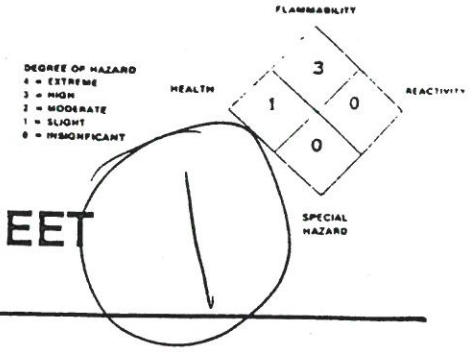

MATERIAL SAFETY DATA SHEET

SECTION I. Identity of Material

PRODUCT NAME OR NUMBER	70% ISOPROPYL ALCOHOL, RUBBING		
SYNONYMS	ISOPROPYL ALCOHOL		
FORMULA CH3 2CHOH	CAS NUMBER MIXTURE	CHEMICAL FAMILY	ALCOHOL

SECTION II-A Hazardous Product/Ingredient Per 29 CFR 1910. 1200

NO.	COMPOSITION	CAS NUMBER	PERCENT
PRODUCT	70% ISOPROPYL ALCOHOL	MIXTURE	100%
1	ISOPROPANOL	67-63-0	70%

THERE ARE NO OTHER LISTED INGREDIENTS CONSIDERED TO BE HAZARDOUS.

SECTION II-B ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
1	5840 MG/KG FOR RATS	13000 MG/KG FOR RABBITS	12000 MG/KG FOR RATS 8 HRS.

FOR CONCENTRATIONS OF 100%

SECTION III PHYSICAL DATA

BOILING POINT: 176 ^{0}F (DEG F)

SPECIFIC GRAVITY: 0.878 (H20 = 1)

VAPOR PRESSURE: 20 ^{0}C (DEG F) (MM HG)

MELTING POINT: 127 ^{0}F (DEG F)

SOLUBILITY: COMPLETE (IN WATER)

VAPOR DENSITY: 1.6 (AIR = 1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): 1.7

APPEARANCE AND ODOR: CLEAR, COLORLESS LIQUID WITH MILD ALCOHOL ODOR.

SECTION IV FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD: 70.5 ^{0}F TAG OPEN CUP

FLAMMABLE LIMITS/% VOLUME IN AIR LOWER: 2% UPPER: 12%

EXTINGUISHING MEDIA USE WATER FOG, ALCOHOL FOAM, DRY CHEMICAL, CO_2

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS WARNING- FLAMMABLE. CLEAR FIRE AREA OF UNPROTECTED PERSONNEL. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES, AND RUBBER BOOTS. INCLUDE A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPRATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME SHOULD BE COOLED WITH LARGE AMOUNTS OF WATER.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. The information set forth herein is furnished free of charge and is based on technical data that CUMBERLAND believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any us of this information. Nothing herein is to be take as a license to operate under or a recommendation to infringe any patents.

SECTION V HEALTH HAZARD INFORMATION

NO.	OSHA PEL/TWA	PEL/CEILING	ACGIH TLV/TWA	TLV/STEL	OTHER
1	400 PPM		400 PPM 980 MG/M^3	500 PPM- 1225 MG/M^3	50% ODOR RECOGNITION THRESHOLD IS 7.5 PPM

CARCINOGEN: OSHA-NO, NTP-NO, IARC-NO

INHALATION:	MAY CAUSE MILD IRRITATION TO THE NOSE, THROAT, AND RERPIRATORY TRACT AND MAY RESULT IN CENTRAL NERVOUS SYSTEM DEPRESSION.
SKIN CONTACT:	MILDLY IRRITATING TO THE SKIN.
SKIN ABSORPTION:	MILDLY IRRITATING TO THE SKIN.
EYE CONTACT:	MODERATELY IRRITATING TO THE EYES.
INGESTION:	GENERALLY CONSIDERED TO HAVE A LOW ORDER OF ACUTE ORAL TOXICITY.
ACUTE: ①	ACUTE LOCAL - IRRITANT 1 ACUTE SYSTEMIC INJESTION 2, INHALATION 2
CHRONIC: ①	CHRONIC LOCAL NO INFORMATION ON HUMANS CONSIDERED VALID BY AUTHORS. CHRONIC SYSTEMIC INJESTION 1 INHALATION 2

SECTION VI EMERGENCY AND FIRST AID PROCEDURES

	IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. OBTAIN IMMEDIATE MEDICAL ATTENTION.
SKIN:	FLUSH SKIN WITH PLENTY OF WATER. IF IRRIATION OCCURS, SEEK MEDICAL ATTENTION.
INHALATION:	REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. OBTAIN MEDICAL ATTENTION.
INGESTION:	DO NOT GIVE LIQUIDS IF VICTIM IS UNCONSCIOUS OR DROWSY. OTHERWISE GIVE NO MORE THAN 2 GLASSES OF WATER AND INDUCE VOMITING BY GIVING 30CC 2 TABLESPOONS SYRUP OF IPECAC. OBTAIN MEDICAL ATTENTION.
NOTES TO PHYSICIAN:	IF VICTIM IS A CHILD, GIVE NO MORE THAN 1 GLASS OF WATER AND 15CC 1 TABLESPOON SYRUP OF IPECAC. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS, OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE SHOULD BE CONSIDERED FOLLOWING INTUBATION WITH A CUFFED ENDOTRACHEAL TUBE.

SECTION VII REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID: AVOID HEAT, SPARKS, FLAME, AND CONTACT WITH OXIDIZING AGENTS. DO NOT STOR OR HANDLE IN ALUMINUM CONTAINERS OR EQUIPMENT AT TEMPERATURES ABOVE 120 ^{0}F.

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

NOTE ① TAKEN FROM DANGEROUS PROPERTIES OF HAZARDOUS MATERIALS, 4TH EDITION, N. IRVING SAX

SECTION VIII EMPLOYEE PROTECTION

CONTROL MEASURES: EXPLOSION PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS.

SPIRATORY PROTECTION: USE NIOSH APPROVED RESPIRATOR TO PREVENT OVER EXPOSURE. IN ACCORD WITH 29CFR 1910.134 USE EITHER AN ATMOSPHERE SUPPLYING RESPIRATOR OR AN AIR PURIFYING RERPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING: AVOID CONTACT WITH EYES. WEAR CHEMICAL GOGGLES IF THERE IS A LIKELIHOOD OF CONTACT WITH THE EYES. AVOID REPEATED CONTACT WITH THE SKIN. WEAR CHEMICAL RESISTIVE GLOVES.

EYE PROTECTION: AVOID CONTACT WITH THE EYES. WEAR CHEMICAL GOGGLES IF THERE IS A LIKELIHOOD OF CONTACT WITH THE EYES.

SECTION IX ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES: WARNING, FLAMMABLE. ELIMINATE ALL IGNITION SOURCES. HANDLING EQUIPMENT MUST BE PROPERLY GROUNDED TO ELIMINATE SPARKING. FOR LARGE SPILLS, EVACUATE AREA OF ALL UNAUTHORIZED PERSONNEL. PERSONS ENTERING AFFECTED AREA MUST WEAR PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT. SHUT OFF SOURCE OF SUPPLY.

WASTE DISPOSAL: UNDER EPA-RACA 40CFR261.21, PRODUCT BECOMES A WASTE MATERIAL. IT WOULD BE IGNITABLE AND A HAZARDOUS WASTE. REFER TO EPA OR STATE REGULATIONS FOR DISPOSAL

ENVIRONMENTAL HAZARDS: RELEASES TO AIR, LAND, WATER MAY BE REPORTABLE. CIRCUMSTANCES SURROUNDING RELEASE AND CLEANUP DETERMINE REPORTABILITY.

SECTION X SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS: USE EXPLOSION PROOF VENTLATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS.

RESPIRATORY (SPECIFY IN DETAIL) — SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

REFER TO SECTION VIII EMPLOYEE PROTECTION

EYE: — GLOVES:

:R TO SECTION VIII EMPLOYEE PROTECTION

OTHER CLOTHING AND EQUIPMENT: EYE WASH FOUNTAIN AND SAFETY SHOWER SHOULD BE AVAILABLE FOR EMERGENCY USE.

SECTION XI TRANSPORTATION DATA

HAZARDOUS CHARACTERISTICS

☐ CORROSIVE	☐ FLAMMABLE LIQUID	☐ FLAMMABLE SOLIDS	☐ EXPLOSIVES
☐ OXIDIZER	☐ POISON	☐ MAGNETIC	☐ NON—FLAMMABLE GAS
☐ FLAMMABLE GAS	☐ RADIOACTIVE	☐ NONE	☒ OTHER CONSUMER COMMODITY-ORM-D

D.O.T. CLASSIFICATION: CONSUMER COMMODITY ORM-D

FLASH POINT: 70.5 °F

SECTION XII MANUFACTURER OR SUPPLIER DATA

FIRM'S NAME & MAILING ADDRESS

CUMBERLAND-SWAN, INC.
ONE SWAN DRIVE
SMYRNA, TN 37167

NAME (PRINT) JAMES R. BEAVER

SIGNATURE James R. Beaver

TITLE RISK MANAGER

DATE 7/10/90

EMERGENCY TELEPHONE NO. 615 459-8900

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SAFETY INFORMATION