

REPORT NUMBER: 703

UNIVAR USA INC.

PAGE: 010

SDS NO: P14625V6

MATERIAL SAFETY DATA SHEET

MAINFRAME UPLOAD DATE: 09/07/04

VERSION: 003

PRODUCT: ISOPROPYL ALCOHOL, 70%

ORDER NO: 852562

PROD NO : 285060

----- FOR ADDITIONAL INFORMATION -----

CONTACT: MSDS COORDINATOR

UNIVAR USA INC.

DURING BUSINESS HOURS, PACIFIC TIME

(425)897-3400

01/25/06 01:40

PRODUCT: 285060

CUST NO: 464000

ORDER NO: 852562

----- NOTICE -----

***** UNIVAR USA INC("UNIVAR"), EXPRESSLY DISCLAIMS

ALL EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A

PARTICULAR PURPOSE, WITH RESPECT TO THE PRODUCT OR INFORMATION PROVIDED

HEREIN, AND SHALL UNDER NO CIRCUMSTANCES BE LIABLE FOR INCIDENTAL OR

CONSEQUENTIAL DAMAGES. **

DO NOT USE INGREDIENT INFORMATION AND/OR PERCENTAGES IN THIS MSDS AS A
PRODUCT SPECIFICATION. FOR PRODUCT SPECIFICATION INFORMATION REFER TO A PRODUCT
SPECIFICATION SHEET AND/OR A CERTIFICATE OF ANALYSIS. THESE CAN BE OBTAINED FROM
YOUR LOCAL UNIVAR SALES OFFICE.

ALL INFORMATION APPEARING HEREIN IS BASED UPON DATA OBTAINED FROM THE
MANUFACTURER AND/OR RECOGNIZED TECHNICAL SOURCES. WHILE THE INFORMATION IS
BELIEVED TO BE ACCURATE, UNIVAR MAKES NO REPRESENTATIONS AS TO ITS ACCURACY OR
EFFICIENCY. CONDITIONS OF USE ARE BEYOND UNIVAR'S CONTROL AND THEREFORE USERS
ARE RESPONSIBLE TO VERIFY THIS DATA UNDER THEIR OWN OPERATING CONDITIONS TO
DETERMINE WHETHER THE PRODUCT IS SUITABLE FOR THEIR PARTICULAR PURPOSES AND THEY
ASSUME ALL RISKS OF THEIR USE, HANDLING, AND DISPOSAL OF THE PRODUCT, OR FROM
THE PUBLICATION OR USE OF, OR RELIANCE UPON, INFORMATION CONTAINED HEREIN.
THIS INFORMATION RELATES ONLY TO THE PRODUCT DESIGNATED HEREIN, AND DOES NOT
RELATE TO ITS USE IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY OTHER
PROCESS.

*** END OF MSDS ***

043

PRODUCT: ISOPROPYL ALCOHOL, 70%

ORDER NO: 852562
PROD NO: 265060

WRS GROUP
HEALTH EDUC
624 TEXAS CENTRAL PKWY

WACO, TX 76712

UNIVAR USA INC.
100 CARILLON POINT, KIRKLAND, WA 98033
(425)889-3400

----- EMERGENCY ASSISTANCE -----

FOR EMERGENCY ASSISTANCE INVOLVING CHEMICALS CALL - CHEMTREC
(800)424-9300

PRODUCT IDENTIFICATION

PRODUCT NAME: ISOPROPYL ALCOHOL, 70%

SDS #: P14625US

DATE ISSUED: 08/17/1999

SUPERSEDES: 11/4/1991

ISSUED BY: 008925

REVIEWED DATE: 09/07/2004
This MSDS has been reviewed on 09/07/2004, and is
current as of the DATE ISSUED above.

HAZARD RATING SYSTEMS:
THIS INFORMATION IS FOR PEOPLE TRAINED IN:
NATIONAL PAINT & COATINGS ASSOCIATION'S (NPCA)
HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 704)

PRODUCT: ISOPROPYL ALCOHOL, 70%

ORDER NO: 852562
PROD NO : 285060

IDENTIFICATION OF THE FIRE HAZARDS OF MATERIALS

	NFPA-HMIS	NFPA 704	KEY
HEALTH	2	1	4 = SEVERE
FLAMMABILITY	3	3	3 = SERIOUS
REACTIVITY	0	0	2 = MODERATE
			1 = SLIGHT
			0 = MINIMAL

For acute and chronic health effects refer to the discussion in Section III

SECTION I NAME

PRODUCT: ISOPROPYL ALCOHOL, 70%

CHEMICAL NAME: IPA, ISOPROPANOL, 2-PROPANOL

CHEMICAL FAMILY: ALCOHOL

SECTION II-A PRODUCT/INGREDIENT

J. COMPOSITION	CAS NUMBER	PERCENT
ISOPROPYL ALCOHOL, 70%	MIXTURE	100
ISOPROPYL ALCOHOL	67-63-0	70
WATER	7732-18-5	30

SECTION II-B ACUTE TOXICITY DATA

Q.	ACUTE ORAL LO50	ACUTE DERMAL LO50	ACUTE INHALATION LC50
	5640 MG/KG (RAT)	13000 MG/KG (RABBIT)	12000 PPM (RAT) 8 HRS

SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

PRODUCT: ISOPROPYL ALCOHOL, 70X

ORDER NO: 852562

PROD NO : 285060

YE CONTACT
MODERATELY IRRITATING TO THE EYES.

SKIN CONTACT
MODERATELY IRRITATING TO THE SKIN.

INHALATION
MAY CAUSE MILD IRRITATION TO THE NOSE, THROAT AND RESPIRATORY TRACT AND MAY
RESULT IN CENTRAL NERVOUS SYSTEM (CNS) DEPRESSION.

INGESTION
IRRITATING TO THE GASTROINTESTINAL TRACT, CAUSING ABDOMINAL PAIN AND VOMITING,
SOMETIMES BLOODY. INGESTION MAY CAUSE CNS DEPRESSION, LOW BLOOD PRESSURE,
RAPID HEART BEAT AND LIVER DAMAGE.

SIGNS AND SYMPTOMS
IRRITATION AS NOTED ABOVE. EARLY TO MODERATE CNS (CENTRAL NERVOUS SYSTEM)
DEPRESSION MAY BE EVIDENCED BY DROWSINESS, HEADACHE, DIZZINESS AND NAUSEA; IN
EXTREME CASES, UNCONSCIOUSNESS, RESPIRATORY DEPRESSION AND DEATH MAY OCCUR.
LIVER DAMAGE MAY BE EVIDENCED BY LOSS OF APPETITE, JAUNDICE (YELLOWISH SKIN
COLOR) AND SOMETIMES PAIN IN THE UPPER ABDOMEN ON THE RIGHT SIDE.

AGGRAVATED MEDICAL CONDITIONS
PREEXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE
TO THIS PRODUCT. IMPAIRED LIVER FUNCTION FROM PREEXISTING DISORDERS MAY BE
AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

SEE SECTION VI FOR ADDITIONAL HEALTH INFORMATION.

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

ID.	OSHA		ACGIH		OTHER
	PEL/TWA	PEL/CEILING	TLV/TWA	TLV/STEL	
	400 PPM		400 PPM	500 PPM	500 PPM*

FOR COMPONENT 1, 50% ODOR RECOGNITION THRESHOLD IS 7.5 PPM.
OSHA PEL/STEL.

SECTION V EMERGENCY AND FIRST AID PROCEDURES

YE CONTACT
IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE

PRODUCT: ISOPROPYL ALCOHOL, 70%

ORDER NO: 852562
PROD NO : 265060

KEEPING EYELIDS OPEN. GET MEDICAL ATTENTION.

SKIN CONTACT
FLUSH SKIN WITH WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION.

INHALATION
REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION.

INGESTION
DO NOT GIVE LIQUIDS IF VICTIM IS UNCONSCIOUS OR VERY DROWSY. OTHERWISE, GIVE NO MORE THAN 2 GLASSES OF WATER AND INDUCE VOMITING BY GIVING 300C (2 TABLESPOONS) SYRUP OF IPECAC.* IF IPECAC IS UNAVAILABLE, GIVE 2 GLASSES OF WATER AND INDUCE VOMITING BY TOUCHING FINGER TO BACK OF VICTIM'S THROAT. KEEP VICTIM'S HEAD BELOW HIPS WHILE VOMITING. GET MEDICAL ATTENTION.

ROUTE TO PHYSICIAN
IF VICTIM IS A CHILD, GIVE NO MORE THAN 1 GLASS OF WATER AND 150C (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 VI SUPPLEMENTAL HEALTH INFORMATION

PA: IN RESPONSE TO A TSCA TEST RULE, SEVERAL STUDIES OF IPA HAVE NOW BEEN COMPLETED. THE STUDIES AND THEIR RESULTS ARE AS FOLLOWS 1) BOTH MUTAGENICITY STUDIES, THE MOUSE MICRONUCLEUS AND CHO ASSAYS, WERE NEGATIVE. 2) RAT AND RABBIT ORAL TERATOGENICITY AND DEVELOPMENTAL TOXICOLOGY: A) THERE WAS NO EVIDENCE THAT IPA CAUSED TERATOGENICITY IN RATS OR RABBITS. B) DEVELOPMENTAL TOXICITY WAS SEEN IN RATS AT 1200 MG/KG (EVIDENCED BY DECREASED BODY WEIGHT**) WHILE NO DEVELOPMENTAL TOXICITY WAS SEEN IN THE RABBIT STUDY. FOR RATS, THE NOEL WAS 400 MG/KG; FOR RABBITS, 480 MG/KG. THIS WORK ALSO IDENTIFIED PREGNANT RABBITS TO BE APPROXIMATELY EIGHT TIMES MORE SENSITIVE TO IPA'S ETHAL EFFECTS THAN NON-PREGNANT RABBITS**.

OTHER TEST RULE RELATED STUDIES: 3) RAT ORAL REPRODUCTIVE TOXICITY: IN THE RAT REPRODUCTIVE TOXICITY STUDY, THE NOEL FOR REPRODUCTION INDICES WAS 1000 MG/KG. HOWEVER, THERE WAS A MARKED INCREASE IN POST - WEANING PUP MORTALITY AT THIS LEVEL**; THE NOEL FOR THIS EFFECT WAS 500 MG/KG. ALSO, THE NOEL FOR PRENATAL FEMALE BODY WEIGHT DECREASE WAS 100 MG/KG. 4) IN RAT INHALATION NEUROTOXICITY AND ORAL DEVELOPMENTAL NEUROTOXICITY STUDIES, THERE WAS NO EVIDENCE THAT IPA CAUSED NEUROTOXICITY IN ADULTS (MAX DOSE 5000 PPM) OR PUPPING (MAX DOSE 1200 MG/KG). 5) SUBCHRONIC RAT AND MOUSE INHALATION TOXICITY: THE SUBCHRONIC NOEL WAS 500 PPM BASED ON CLINICAL SIGNS OF CNS DEPRESSION (BOTH SPECIES) AND INCREASED BODY WEIGHT AND BLOOD EFFECTS (RAT ONLY) SEEN AT 1500 PPM. (NOTE: THE INFORMATION TAGGED BY "**" ABOVE WERE

PRODUCT: ISOPROPYL ALCOHOL, 70%

ORDER NO: 852562
PROD NO : 285060

SUBMITTED TO EPA UNDER THE REQUIREMENTS OF TSCA 8(E).)

SECTION VII PHYSICAL DATA

BOILING POINT: 190°
(DEG F)

SPECIFIC GRAVITY: 0.85
(H2O=1)

VAPOR PRESSURE: 25" @ 68 DEG F
MM HG)

MELTING POINT: NOT AVAILABLE
(DEG F)

SOLUBILITY: COMPLETE
(IN WATER)

VAPOR DENSITY: 1.6
AIR=1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): 0.7

ESTIMATED

APPEARANCE AND ODOR:
COLORLESS, MOBILE LIQUID. MILD ODOR.

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD:
PX, 77 DEG F -TCC

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

EXTINGUISHING MEDIA
USE WATER FOG, "ALCOHOL" FOAM, DRY CHEMICAL OR CO2.

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
GATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED
SELF-CONTAINED BREATHING APPARATUS. 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 CONTACT SHOULD BE COOLED WITH LARGE
QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

PRODUCT: ISOPROPYL ALCOHOL, 70%

ORDER NO: 852562
PROD NO : 283060

SECTION IX REACTIVITY

STABILITY: STABLE HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:
AVOID HEAT, SPARKS, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

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

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION
IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A
IOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR
1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING
RESPIRATOR FOR ORGANIC VAPORS.

OSHA HAS ESTABLISHED TRANSITIONAL OCCUPATIONAL EXPOSURE LIMITS FOR THIS
PRODUCT AND/OR COMPONENTS OF THIS PRODUCT. REFER TO 29 CFR 1910.1000 FOR
THESE TRANSITIONAL LIMITS AND REQUIREMENTS FOR MEETING THESE LIMITS.

PROTECTIVE CLOTHING
AVOID CONTACT WITH EYES. WEAR CHEMICAL GOGGLES IF THERE IS LIKELIHOOD OF
CONTACT WITH EYES. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR
CHEMICAL-RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT.
BEST DATA FROM PUBLISHED LITERATURE AND/OR GLOVE AND CLOTHING MANUFACTURERS
INDICATE THE BEST PROTECTION IS PROVIDED BY NITRILE, NEOPRENE AND NATURAL
RUBBER GLOVES.

ADDITIONAL PROTECTIVE MEASURES
USE EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS.
EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE FOR EMERGENCY USE.

SECTION XI ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES
WARNING. FLAMMABLE. ELIMINATE ALL IGNITION SOURCES. HANDLING EQUIPMENT MUST
BE GROUNDED TO PREVENT SPARKING. *** LARGE SPILLS *** EVACUATE THE HAZARD
AREA OF UNPROTECTED PERSONNEL. WEAR APPROPRIATE RESPIRATOR AND PROTECTIVE
CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN.
IF VAPOR CLOUD FORMS, WATER FOG MAY BE USED TO SUPPRESS; CONTAIN RUN-OFF.

PRODUCT: ISOPROPYL ALCOHOL, 70%

ORDER NO: 852562
PROD NO : 285060

REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTIONS AS ABOVE. *** SMALL SPILLS *** TAKE UP WITH AN ABSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS; SEAL TIGHTLY FOR PROPER DISPOSAL.

SECTION XII SPECIAL PRECAUTIONS

KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE EVEN LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPORS ARE GONE.

VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM THE HANDLING SITE; FLASH-FIRE CAN RESULT. KEEP CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION. CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS. DO NOT PRESSURIZE DRUM CONTAINERS TO EMPTY THEM. STATIC ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT. BOND AND GROUND TRANSFER CONTAINERS AND EQUIPMENT.

WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA BEFORE LAUNDERING.

DO NOT STORE OR HANDLE IN ALUMINUM EQUIPMENT AT TEMPERATURES ABOVE 120 DEG. F.

SECTION XIII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:
FLAMMABLE LIQUID

U.S.T. PROPER SHIPPING NAME:
ISOPROPANOL

OTHER REQUIREMENTS:
DOT ID NUMBER = UN 1219 - GUIDE SHEET 129

SECTION XIV OTHER REGULATORY CONTROLS

THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA INVENTORY OF

SECTION II SARA TITLE III INFORMATION

PRODUCT: ISOPROPYL ALCOHOL, 70%

ORDER NO: 852562
PROD NO : 205060

0. EHS RQ (LRS)	EHS TPQ (LRS)	SEC 313	313 CATEGORY	311/312 CATEGORIES
(+1)	(+2)	(+3)	(+4)	(+5)

H-1, P-3

FOOTNOTES

1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC.302

2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC 302

3 = TOXIC CHEMICAL, SEC 313

4 = CATEGORY AS REQUIRED BY SEC 313 (40 CFR 372.65 C), MUST BE USED ON TOXIC RELEASE INVENTORY FORM

5 = HAZARD CATEGORY FOR SARA SEC. 311/312 REPORTING

HEALTH

H-1 = IMMEDIATE (ACUTE) HEALTH HAZARD H-2 = DELAYED (CHRONIC) HEALTH HAZARD

PHYSICAL

H-3 = FIRE HAZARD P-4 = SUDDEN RELEASE OF PRESSURE HAZARD

H-5 = REACTIVE HAZARD

SECTION III ENVIRONMENTAL RELEASE INFORMATION

PA - COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT.

UNDER EPA-CERCLA ("SUPERFUND") RELEASES TO AIR, LAND OR WATER MAY BE REPORTABLE TO THE NATIONAL RESPONSE CENTER, (800)424-8802 (CIRCUMSTANCES SURROUNDING THE RELEASE AND CLEANUP DETERMINE REPORTABILITY).

SECTION IV RCRA INFORMATION

UNDER EPA-RCRA (40 CFR 261.21), IF THIS PRODUCT BECOMES A WASTE MATERIAL, IT COULD BE IGNITABLE HAZARDOUS WASTE, HAZARDOUS WASTE NUMBER 0001. REFER TO LATEST EPA OR STATE REGULATIONS REGARDING PROPER DISPOSAL.