

This SDS should be attached or kept with the respective product with which it is associated.

SDS - D5281

Associated Items
1

GHS (R*)

SAFETY DATA SHEET

PURELL(R*) ADVANCED INSTANT HAND SANITIZER

VERSION: 1.1

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-----SECTION 1. IDENTIFICATION-----

PRODUCT NAME: PURELL(R*) ADVANCED INSTANT HAND SANITIZER

MANUFACTURER OR SUPPLIER'S DETAILS:

COMPANY NAME OF SUPPLIER: GOJO INDUSTRIES, INC.

ADDRESS:
ONE GOJO PLAZA
SUITE 500
AKRON OH 44311

TELEPHONE: 1 (330) 255-6000

EMERGENCY TELEPHONE: 1-800-424-9300 CHEMTREC

RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE:

RECOMMENDED USE: HAND SANITIZER

RESTRICTIONS ON USE:

THIS IS A PERSONAL CARE OR COSMETIC PRODUCT THAT IS SAFE FOR CONSUMERS AND OTHER USERS UNDER NORMAL AND REASONABLY FORESEEABLE USE. COSMETICS AND CONSUMER PRODUCTS, SPECIFICALLY DEFINED BY REGULATIONS AROUND THE WORLD, ARE EXEMPT FROM THE REQUIREMENT OF AN SDS FOR THE CONSUMER. WHILE THIS MATERIAL IS NOT CONSIDERED HAZARDOUS, THIS SDS CONTAINS VALUABLE INFORMATION CRITICAL TO THE SAFE HANDLING AND PROPER USE OF THE PRODUCT FOR INDUSTRIAL WORKPLACE CONDITIONS AS WELL AS UNUSUAL AND UNINTENDED EXPOSURES AS LARGE SPILLS. THIS SDS SHOULD BE RETAINED AND AVAILABLE FOR EMPLOYEES AND OTHER USERS OF THIS PRODUCT. FOR SPECIFIC INTENDED-USE INFORMATION, PLEASE REFER TO THE INFORMATION PROVIDED ON THE PACKAGE OR INSTRUCTION SHEET.

-----SECTION 2. HAZARDS IDENTIFICATION-----

GHS CLASSIFICATION:
FLAMMABLE LIQUIDS: CATEGORY 3
EYE IRRITATION: CATEGORY 2A

GHS LABEL ELEMENT:

HAZARD PICTOGRAMS:
FLAME
EXCLAMATION MARK

SIGNAL WORD: WARNING

HAZARD STATEMENTS:
H226: FLAMMABLE LIQUID AND VAPOR.
H319: CAUSES SERIOUS EYE IRRITATION.

PRECAUTIONARY STATEMENTS:

PREVENTION:

P210: KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. - NO SMOKING.

P233: KEEP CONTAINER TIGHTLY CLOSED.

P241: USE EXPLOSION-PROOF ELECTRICAL/ VENTILATING/ LIGHTING/ EQUIPMENT.

P242: USE ONLY NON-SPARKING TOOLS.

P243: TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE.

P264: WASH SKIN THOROUGHLY AFTER HANDLING.

P280: WEAR PROTECTIVE GLOVES/ EYE PROTECTION/ FACE PROTECTION.

RESPONSE:

P303 + P361 + P353:
IF ON SKIN (OR HAIR):
TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/SHOWER.

P305 + P351 + P338:

IF IN EYES:

RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING.

P337 + P313:

IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/ ATTENTION.

STORAGE:

P403 + P235: STORE IN A WELL-VENTILATED PLACE. KEEP COOL.

DISPOSAL:

P501: DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.

OTHER HAZARDS: VAPORS MAY FORM EXPLOSIVE MIXTURE WITH AIR.

-----SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS-----

SUBSTANCE / MIXTURE: MIXTURE

HAZARDOUS INGREDIENTS:

CHEMICAL NAME	CAS-NO.	CONCENTRATION (%)
ETHANOL	64-17-5	>=50 - <70
PROPAN-2-OL	67-63-0	>=1 - <5

-----SECTION 4. FIRST AID MEASURES-----

GENERAL ADVICE:

IN THE CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY.

WHEN SYMPTOMS PERSIST OR IN ALL CASES OF DOUBT SEEK MEDICAL ADVICE.

IF INHALED:

IF INHALED, REMOVE TO FRESH AIR.

GET MEDICAL ATTENTION IF SYMPTOMS OCCUR.

IN CASE OF SKIN CONTACT:

WASH WITH WATER AND SOAP AS A PRECAUTION.

GET MEDICAL ATTENTION IF SYMPTOMS OCCUR.

IN CASE OF EYE CONTACT:

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES.

IF EASY TO DO, REMOVE CONTACT LENS, IF WORN.

GET MEDICAL ATTENTION.

IF SWALLOWED:

IF SWALLOWED, DO NOT INDUCE VOMITING.

GET MEDICAL ATTENTION IF SYMPTOMS OCCUR.

RINSE MOUTH THOROUGHLY WITH WATER.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:
CAUSES SERIOUS EYE IRRITATION.

PROTECTION OF FIRST-AIDERS:

FIRST AID RESPONDERS SHOULD PAY ATTENTION TO SELF-PROTECTION, AND USE THE RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT WHEN THE POTENTIAL FOR EXPOSURE EXISTS.

NOTES TO PHYSICIAN: TREAT SYMPTOMATICALLY AND SUPPORTIVELY.

-----SECTION 5. FIRE-FIGHTING MEASURES-----

SUITABLE EXTINGUISHING MEDIA:

WATER SPRAY
ALCOHOL-RESISTANT FOAM
DRY CHEMICAL
CARBON DIOXIDE (CO2)

UNSUITABLE EXTINGUISHING MEDIA: HIGH VOLUME WATER JET

SPECIFIC HAZARDS DURING FIRE FIGHTING:

DO NOT USE A SOLID WATER STREAM AS IT MAY SCATTER AND SPREAD FIRE.

FLASH BACK POSSIBLE OVER CONSIDERABLE DISTANCE.

VAPORS MAY FORM EXPLOSIVE MIXTURES WITH AIR.

EXPOSURE TO COMBUSTION PRODUCTS MAY BE A HAZARD TO HEALTH.

HAZARDOUS COMBUSTION PRODUCTS: CARBON OXIDES

SPECIFIC EXTINGUISHING METHODS:

USE EXTINGUISHING MEASURES THAT ARE APPROPRIATE TO LOCAL CIRCUMSTANCES AND THE SURROUNDING ENVIRONMENT.

USE WATER SPRAY TO COOL UNOPENED CONTAINERS.

REMOVE UNDAMAGED CONTAINERS FROM FIRE AREA IF IT IS SAFE TO DO SO.

EVACUATE AREA.



SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS:
IN THE EVENT OF FIRE, WEAR SELF-CONTAINED BREATHING APPARATUS.
USE PERSONAL PROTECTIVE EQUIPMENT.

-----SECTION 6. ACCIDENTAL RELEASE MEASURES -----

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:
REMOVE ALL SOURCES OF IGNITION.

USE PERSONAL PROTECTIVE EQUIPMENT.

FOLLOW SAFE HANDLING ADVICE AND PERSONAL PROTECTIVE EQUIPMENT
RECOMMENDATIONS.

ENVIRONMENTAL PRECAUTIONS:
DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO.

PREVENT SPREADING OVER A WIDE AREA (E.G. BY CONTAINMENT OR OIL BARRIERS).

RETAIN AND DISPOSE OF CONTAMINATED WASH WATER.

LOCAL AUTHORITIES SHOULD BE ADVISED IF SIGNIFICANT SPILLAGES CANNOT BE
CONTAINED.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:
NON-SPARKING TOOLS SHOULD BE USED.

SOAK UP WITH INERT ABSORBENT MATERIAL.

SUPPRESS (KNOCK DOWN) GASES/VAPORS/MISTS WITH A WATER SPRAY JET.

FOR LARGE SPILLS, PROVIDE DIKING OR OTHER APPROPRIATE CONTAINMENT TO KEEP
MATERIAL FROM SPREADING. IF DIKED MATERIAL CAN BE PUMPED, STORE RECOVERED
MATERIAL IN APPROPRIATE CONTAINER.

CLEAN UP REMAINING MATERIALS FROM SPILL WITH SUITABLE ABSORBENT.

LOCAL OR NATIONAL REGULATIONS MAY APPLY TO RELEASES AND DISPOSAL OF THIS
MATERIAL, AS WELL AS THOSE MATERIALS AND ITEMS EMPLOYED IN THE CLEANUP OF
RELEASES. YOU WILL NEED TO DETERMINE WHICH REGULATIONS ARE APPLICABLE.

SECTIONS 13 AND 15 OF THIS SDS PROVIDE INFORMATION REGARDING CERTAIN LOCAL
OR NATIONAL REQUIREMENTS.

-----SECTION 7. HANDLING AND STORAGE -----

TECHNICAL MEASURES:
SEE ENGINEERING MEASURES UNDER EXPOSURE CONTROLS/PERSONAL PROTECTION
SECTION.

LOCAL/TOTAL VENTILATION:
USE WITH LOCAL EXHAUST VENTILATION.
USE ONLY IN AN AREA EQUIPPED WITH EXPLOSION PROOF EXHAUST VENTILATION.

ADVICE ON SAFE HANDLING:
DO NOT BREATHE VAPORS OR SPRAY MIST.
DO NOT SWALLOW.
DO NOT GET IN EYES.
AVOID PROLONGED OR REPEATED CONTACT WITH SKIN.
HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE.
NON-SPARKING TOOLS SHOULD BE USED.
KEEP CONTAINER TIGHTLY CLOSED.
KEEP AWAY FROM HEAT AND SOURCES OF IGNITION.
TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES.
TAKE CARE TO PREVENT SPILLS, WASTE AND MINIMIZE RELEASE TO THE ENVIRONMENT.

CONDITIONS FOR SAFE STORAGE:
KEEP IN PROPERLY LABELED CONTAINERS.
KEEP TIGHTLY CLOSED.
KEEP IN A COOL, WELL-VENTILATED PLACE.
STORE IN ACCORDANCE WITH THE PARTICULAR NATIONAL REGULATIONS.
KEEP AWAY FROM HEAT AND SOURCES OF IGNITION.

MATERIALS TO AVOID:
DO NOT STORE WITH THE FOLLOWING PRODUCT TYPES:
STRONG OXIDIZING AGENTS
ORGANIC PEROXIDES
FLAMMABLE SOLIDS
PYROPHORIC LIQUIDS
PYROPHORIC SOLIDS
SELF-HEATING SUBSTANCES AND MIXTURES
SUBSTANCES AND MIXTURES WHICH IN CONTACT WITH WATER EMIT
FLAMMABLE GASES
EXPLOSIVES
GASES

-----SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION -----

INGREDIENTS WITH WORKPLACE CONTROL PARAMETERS:

INGREDIENTS	CAS-NO.	VALUE TYPE	CONTROL	BASIS
(FORM OF EXPOSURE)	PARAMETERS / PERMISSIBLE CONCENTRATION			
ETHANOL	64-17-5	TWA 1,900 MG/M3	1,000 PPM	NIOSH REL
		TWA 1,000 PPM 1,900 MG/M3	OSHA Z-1	
		STEL 1,000 PPM	ACGIH	

PROPAN-2-OL 67-63-0 TWA 200 PPM ACGIH

STEL	400 PPM	ACGIH
TWA	400 PPM 980 MG/M3	NIOSH REL
ST	500 PPM 1,225 MG/M3	NIOSH REL
TWA	400 PPM 980 MG/M3	OSHA Z-1

BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS:

INGREDIENTS CAS-NO. CONTROL BIOLOGICAL SAMPLING PERMISSIBLE BASIS
PARAMETERS SPECIMEN TIME CONCENTRATION

PROPAN-2-OL 67-63-0	ACETONE	URINE	END OF	40 MG/L	ACGIH
	SHIFT AT	BEI			
	END OF				
	WORK-				
	WEEK				

ENGINEERING MEASURES:
MINIMIZE WORKPLACE EXPOSURE CONCENTRATIONS.
USE ONLY IN AN AREA EQUIPPED WITH EXPLOSION PROOF EXHAUST VENTILATION.
USE WITH LOCAL EXHAUST VENTILATION.

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION:
GENERAL AND LOCAL EXHAUST VENTILATION IS RECOMMENDED TO MAINTAIN VAPOR
EXPOSURES BELOW RECOMMENDED LIMITS. WHERE CONCENTRATIONS ARE ABOVE
RECOMMENDED LIMITS OR ARE UNKNOWN, APPROPRIATE RESPIRATORY PROTECTION
SHOULD BE WORN. FOLLOW OSHA RESPIRATOR REGULATIONS (29 CFR 1910.134) AND
USE NIOSH/MSHA APPROVED RESPIRATORS. PROTECTION PROVIDED BY AIR PURIFYING
RESPIRATORS AGAINST EXPOSURE TO ANY HAZARDOUS CHEMICAL IS LIMITED. USE A
POSITIVE PRESSURE AIR SUPPLIED RESPIRATOR IF THERE IS ANY POTENTIAL FOR
UNCONTROLLED RELEASE, EXPOSURE LEVELS ARE UNKNOWN, OR ANY OTHER
CIRCUMSTANCE WHERE AIR PURIFYING RESPIRATORS MAY NOT PROVIDE ADEQUATE
PROTECTION.

HAND PROTECTION:

MATERIAL: IMPERVIOUS GLOVES

MATERIAL: FLAME RETARDANT GLOVES

REMARKS:
CHOOSE GLOVES TO PROTECT HANDS AGAINST CHEMICALS DEPENDING ON THE
CONCENTRATION SPECIFIC TO PLACE OF WORK. BREAKTHROUGH TIME IS NOT
DETERMINED FOR THE PRODUCT. CHANGE GLOVES OFTEN! FOR SPECIAL APPLICATIONS,
WE RECOMMEND CLARIFYING THE RESISTANCE TO CHEMICALS OF THE AFOREMENTIONED
PROTECTIVE GLOVES WITH THE GLOVE MANUFACTURER. WASH HANDS BEFORE BREAKS
AND AT THE END OF WORKDAY.

EYE PROTECTION:
WEAR THE FOLLOWING PERSONAL PROTECTIVE EQUIPMENT: SAFETY GOGGLES

SKIN AND BODY PROTECTION:
SELECT APPROPRIATE PROTECTIVE CLOTHING BASED ON CHEMICAL RESISTANCE DATA
AND AN ASSESSMENT OF THE LOCAL EXPOSURE POTENTIAL.

WEAR THE FOLLOWING PERSONAL PROTECTIVE EQUIPMENT:
FLAME RETARDANT ANTISTATIC PROTECTIVE CLOTHING.

SKIN CONTACT MUST BE AVOIDED BY USING IMPERVIOUS PROTECTIVE CLOTHING
(GLOVES, APRONS, BOOTS, ETC).

HYGIENE MEASURES:
ENSURE THAT EYE FLUSHING SYSTEMS AND SAFETY SHOWERS ARE LOCATED CLOSE TO
THE WORKING PLACE.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

WASH CONTAMINATED CLOTHING BEFORE RE-USE.

-----SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES -----

APPEARANCE: LIQUID

COLOR: CLEAR, COLORLESS TO PALE YELLOW

ODOR: CITRUS

ODOR THRESHOLD: NO DATA AVAILABLE

PH: 6.5 - 8.5

MELTING POINT/FREEZING POINT: NO DATA AVAILABLE

INITIAL BOILING POINT AND BOILING RANGE: 70 DEG. C

FLASH POINT: 25 DEG. C

EVAPORATION RATE: NO DATA AVAILABLE

FLAMMABILITY (SOLID, GAS): NOT APPLICABLE

UPPER EXPLOSION LIMIT: NO DATA AVAILABLE
LOWER EXPLOSION LIMIT: NO DATA AVAILABLE

VAPOR PRESSURE: NO DATA AVAILABLE

RELATIVE VAPOR DENSITY: NO DATA AVAILABLE



DENSITY: 0.8750 G/CM3

SOLUBILITY(IES):

WATER SOLUBILITY: SOLUBLE

PARTITION COEFFICIENT N-OCTANOL/WATER: NOT APPLICABLE

AUTOIGNITION TEMPERATURE: NO DATA AVAILABLE

DECOMPOSITION TEMPERATURE:
THE SUBSTANCE OR MIXTURE IS NOT CLASSIFIED SELF-REACTIVE.

VISCOSITY:

VISCOSITY, KINEMATIC: 3,500 - 23,000 MM2/S (20 DEG. C)

EXPLOSIVE PROPERTIES: NOT EXPLOSIVE

OXIDIZING PROPERTIES:
THE SUBSTANCE OR MIXTURE IS NOT CLASSIFIED AS OXIDIZING.

-----SECTION 10. STABILITY AND REACTIVITY -----

REACTIVITY: NOT CLASSIFIED AS A REACTIVITY HAZARD.

CHEMICAL STABILITY: STABLE UNDER NORMAL CONDITIONS.

POSSIBILITY OF HAZARDOUS REACTIONS:
FLAMMABLE LIQUID AND VAPOR.
VAPORS MAY FORM EXPLOSIVE MIXTURE WITH AIR.
CAN REACT WITH STRONG OXIDIZING AGENTS.

CONDITIONS TO AVOID: HEAT, FLAMES AND SPARKS.

INCOMPATIBLE MATERIALS: OXIDIZING AGENTS

HAZARDOUS DECOMPOSITION PRODUCTS:
NO HAZARDOUS DECOMPOSITION PRODUCTS ARE KNOWN.

-----SECTION 11. TOXICOLOGICAL INFORMATION -----

INFORMATION ON LIKELY ROUTES OF EXPOSURE:

INHALATION
SKIN CONTACT
INGESTION
EYE CONTACT

ACUTE TOXICITY: NOT CLASSIFIED BASED ON AVAILABLE INFORMATION.

PRODUCT:

ACUTE ORAL TOXICITY:
ACUTE TOXICITY ESTIMATE: >5,000 MG/KG
METHOD: CALCULATION METHOD

INGREDIENTS:

IOL:

ACUTE ORAL TOXICITY:
LD50 (RAT): >5,000 MG/KG

ACUTE INHALATION TOXICITY:
LC50 (RAT): 124.7 MG/L
EXPOSURE TIME: 4 H
TEST ATMOSPHERE: VAPOR

PROPAN-2-OL:

ACUTE ORAL TOXICITY:
LD50 (RAT): >5,000 MG/KG

ACUTE INHALATION TOXICITY:
LC50 (RAT): 72.6 MG/L
EXPOSURE TIME: 4 H
TEST ATMOSPHERE: VAPOR

ACUTE DERMAL TOXICITY:
LD50 (RAT): >5,000 MG/KG

SKIN CORROSION/IRRITATION: NOT CLASSIFIED BASED ON AVAILABLE INFORMATION.

PRODUCT:
RESULT: NO SKIN IRRITATION

INGREDIENTS:

ETHANOL:
SPECIES: RABBIT
METHOD: OECD TEST GUIDELINE 404
RESULT: NO SKIN IRRITATION

PROPAN-2-OL:
SPECIES: RABBIT
RESULT: NO SKIN IRRITATION

SERIOUS EYE DAMAGE/EYE IRRITATION: CAUSES SERIOUS EYE IRRITATION.

INGREDIENTS:

ETHANOL:
SPECIES: RABBIT
RESULT: IRRITATION TO EYES, REVERSING WITHIN 21 DAYS
METHOD: OECD TEST GUIDELINE 405

PROPAN-2-OL:
SPECIES: RABBIT
RESULT: IRRITATION TO EYES, REVERSING WITHIN 21 DAYS

RESPIRATORY OR SKIN SENSITIZATION:
SKIN SENSITIZATION: NOT CLASSIFIED BASED ON AVAILABLE INFORMATION.
RESPIRATORY SENSITIZATION: NOT CLASSIFIED BASED ON AVAILABLE INFORMATION.

PRODUCT:

ASSESSMENT: DOES NOT CAUSE SKIN SENSITIZATION.

INGREDIENTS:

ETHANOL:

TEST TYPE: LOCAL LYMPH NODE ASSAY (LLNA)
ROUTES OF EXPOSURE: SKIN CONTACT
SPECIES: MOUSE
RESULT: NEGATIVE

PROPAN-2-OL:
TEST TYPE: BUEHLER TEST
ROUTES OF EXPOSURE: SKIN CONTACT
SPECIES: GUINEA PIG
METHOD: OECD TEST GUIDELINE 406
RESULT: NEGATIVE

GERM CELL MUTAGENICITY: NOT CLASSIFIED BASED ON AVAILABLE INFORMATION.

INGREDIENTS:

ETHANOL:

GENOTOXICITY IN VITRO:
TEST TYPE: IN VITRO MAMMALIAN CELL GENE MUTATION TEST
RESULT: NEGATIVE

GENOTOXICITY IN VIVO:
TEST TYPE: RODENT DOMINANT LETHAL TEST (GERM CELL) (IN VIVO)
SPECIES: MOUSE
APPLICATION ROUTE: INGESTION
RESULT: NEGATIVE

PROPAN-2-OL:

GENOTOXICITY IN VITRO:
TEST TYPE: BACTERIAL REVERSE MUTATION ASSAY (AMES)
RESULT: NEGATIVE

GENOTOXICITY IN VIVO:

TEST TYPE:
MAMMALIAN ERYTHROCYTE MICRONUCLEUS TEST (IN VIVO CYTOGENETIC ASSAY)

SPECIES: MOUSE

APPLICATION ROUTE: INTRAPERITONEAL INJECTION

RESULT: NEGATIVE

CARCINOGENICITY: NOT CLASSIFIED BASED ON AVAILABLE INFORMATION.

INGREDIENTS:

PROPAN-2-OL:

SPECIES: RAT
APPLICATION ROUTE: INHALATION (VAPOR)
EXPOSURE TIME: 104 WEEKS
METHOD: OECD TEST GUIDELINE 451
RESULT: NEGATIVE

IARC:
NO INGREDIENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED HUMAN CARCINOGEN BY IARC.

OSHA:
NO INGREDIENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL CARCINOGEN BY OSHA.

NTP:
NO INGREDIENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED CARCINOGEN BY NTP.

REPRODUCTIVE TOXICITY: NOT CLASSIFIED BASED ON AVAILABLE INFORMATION.

INGREDIENTS:

ETHANOL:

EFFECTS ON FERTILITY:
TEST TYPE: TWO-GENERATION REPRODUCTION TOXICITY STUDY
SPECIES: MOUSE
APPLICATION ROUTE: INGESTION
METHOD: OECD TEST GUIDELINE 416
RESULT: NEGATIVE

PROPAN-2-OL:

EFFECTS ON FERTILITY:
TEST TYPE: TWO-GENERATION REPRODUCTION TOXICITY STUDY
SPECIES: RAT
APPLICATION ROUTE: INGESTION
RESULT: NEGATIVE

EFFECTS ON FETAL DEVELOPMENT:



TEST TYPE: EMBRYO-FETAL DEVELOPMENT
SPECIES: RAT
APPLICATION ROUTE: INGESTION
RESULT: NEGATIVE

STOT-SINGLE EXPOSURE: NOT CLASSIFIED BASED ON AVAILABLE INFORMATION.

INGREDIENTS:

PROPAN-2-OL:
ASSESSMENT: MAY CAUSE DROWSINESS OR DIZZINESS.

S REPEATED EXPOSURE: NOT CLASSIFIED BASED ON AVAILABLE INFORMATION.

REPEATED DOSE TOXICITY:

INGREDIENTS:

ETHANOL:
SPECIES: RAT
NOAEL: 2,400 MG/KG
APPLICATION ROUTE: INGESTION
EXPOSURE TIME: 2 Y

PROPAN-2-OL:

SPECIES: RAT
NOAEL: 5000 PPM
APPLICATION ROUTE: INHALATION (VAPOR)
EXPOSURE TIME: 104 W
METHOD: OECD TEST GUIDELINE 413

ASPIRATION TOXICITY: NOT CLASSIFIED BASED ON AVAILABLE INFORMATION.

SECTION 12. ECOLOGICAL INFORMATION

ECOTOXICITY

INGREDIENTS:

ETHANOL:

TOXICITY TO FISH:
LC50 (PIMEPHALES PROMELAS (FATHEAD MINNOW)): >1,000 MG/L
EXPOSURE TIME: 96 H

TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES:
EC50 (DAPHNIA MAGNA (WATER FLEA)): >1,000 MG/L
EXPOSURE TIME: 48 H

TOXICITY TO ALGAE:
EC50 (CHLORELLA VULGARIS (FRESH WATER ALGAE)): 275 MG/L
EXPOSURE TIME: 72 H
METHOD: OECD TEST GUIDELINE 201

TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES (CHRONIC TOXICITY):
NOEC (DAPHNIA MAGNA (WATER FLEA)): 9.6 MG/L
EXPOSURE TIME: 9 D

TOXICITY TO BACTERIA:
EC50 (PHOTOBACTERIUM PHOSPHOREUM): 32.1 MG/L
EXPOSURE TIME: 0.25 H

PROPAN-2-OL:

TOXICITY TO FISH:
LC50 (PIMEPHALES PROMELAS (FATHEAD MINNOW)): 10,000 MG/L
EXPOSURE TIME: 96 H

TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES:
EC50 (DAPHNIA MAGNA (WATER FLEA)): >10,000 MG/L
EXPOSURE TIME: 24 H

TOXICITY TO ALGAE:
ERC50 (SCENEDESMUS QUADRICAUDA (GREEN ALGAE)): >1,800 MG/L
EXPOSURE TIME: 8 D

TOXICITY TO BACTERIA:
EC50 (PSEUDOMONAS PUTIDA): >1,050 MG/L
EXPOSURE TIME: 16 H

PERSISTENCE AND DEGRADABILITY:

INGREDIENTS:

ETHANOL:

BIODEGRADABILITY:
RESULT: READILY BIODEGRADABLE.
BIODEGRADATION: 84%
EXPOSURE TIME: 20 D

PROPAN-2-OL:

BIODEGRADABILITY:
RESULT: RAPIDLY DEGRADABLE

BIOACCUMULATIVE POTENTIAL:

INGREDIENTS:

ETHANOL:

PARTITION COEFFICIENT N-OCTANOL/WATER:
LOG POW: -0.35

PROPAN-2-OL:

PARTITION COEFFICIENT N-OCTANOL/WATER:
LOG POW: 0.05

MOBILITY IN SOIL: NO DATA AVAILABLE

OTHER ADVERSE EFFECTS: NO DATA AVAILABLE

SECTION 13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:

WASTE FROM RESIDUES: DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS.

CONTAMINATED PACKAGING:
DISPOSE OF AS UNUSED PRODUCT.

EMPTY CONTAINERS SHOULD BE TAKEN TO AN APPROVED WASTE HANDLING SITE FOR RECYCLING OR DISPOSAL.

DO NOT BURN, OR USE A CUTTING TORCH ON, THE EMPTY DRUM.

SECTION 14. TRANSPORT INFORMATION

INTERNATIONAL REGULATION:

UNRTDG:
UN NUMBER: UN 1987
PROPER SHIPPING NAME: ALCOHOLS, N.O.S. (ETHANOL, PROPAN-2-OL)
CLASS: 3
PACKING GROUP: III
LABELS: 3

IATA-DGR:
UN/ID NO.: UN 1987
PROPER SHIPPING NAME: ALCOHOLS, N.O.S. (ETHANOL, PROPAN-2-OL)
CLASS: 3
PACKING GROUP: III
LABELS: FLAMMABLE LIQUIDS
PACKING INSTRUCTION (CARGO AIRCRAFT): 366
PACKING INSTRUCTION (PASSENGER AIRCRAFT): 355

IMDG-CODE:
UN NUMBER: UN 1987
PROPER SHIPPING NAME: ALCOHOLS, N.O.S. (ETHANOL, PROPAN-2-OL)
CLASS: 3
PACKING GROUP: III
LABELS: 3
EMS CODE: F-E, S-D
MARINE POLLUTANT: NO

TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:
NOT APPLICABLE FOR PRODUCT AS SUPPLIED.

DOMESTIC REGULATION:

49 CFR:
UN/ID/NA NUMBER: UN 1987
PROPER SHIPPING NAME: ALCOHOLS, N.O.S.
CLASS: 3
PACKING GROUP: III
LABELS: FLAMMABLE LIQUID
ERG CODE: 127
MARINE POLLUTANT: NO

SECTION 15. REGULATORY INFORMATION

EPCRA - EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW:

CERCLA REPORTABLE QUANTITY:
THIS MATERIAL DOES NOT CONTAIN ANY COMPONENTS WITH A CERCLA RQ.

SARA 304 EXTREMELY HAZARDOUS SUBSTANCES REPORTABLE QUANTITY:
THIS MATERIAL DOES NOT CONTAIN ANY COMPONENTS WITH A SECTION 304 EHS RQ.

SARA 311/312 HAZARDS:
FIRE HAZARD
ACUTE HEALTH HAZARD

SARA 302:
NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302.

SARA 313:
THE FOLLOWING COMPONENTS ARE SUBJECT TO REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313:

PROPAN-2-OL	67-63-0	3.4086%
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US STATE REGULATIONS:

PENNSYLVANIA RIGHT TO KNOW:

ETHANOL	64-17-5	50 - 70%
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WATER	7732-18-5	30 - 50%
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PROPAN-2-OL	67-63-0	1 - 5%
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NEW JERSEY RIGHT TO KNOW:

ETHANOL	64-17-5	50 - 70%
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WATER	7732-18-5	30 - 50%
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CALIFORNIA PROP 65:
THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH, OR ANY OTHER REPRODUCTIVE DEFECTS.

THE INGREDIENTS OF THIS PRODUCT ARE REPORTED IN THE FOLLOWING INVENTORIES:

AICS: ALL INGREDIENTS LISTED OR EXEMPT.

INVENTORIES:

A USTRALIA), DSL (CANADA), IECSC (CHINA), REACH (EUROPEAN UNION), ENCS
(J), ISHL (JAPAN), KECI (KOREA), NZIOC (NEW ZEALAND), PICCS
(PHILIPPINES), NECSI (TAIWAN), TSCA (USA)

—SECTION 16. OTHER INFORMATION —

FURTHER INFORMATION:

NFPA:
HEALTH 2
FLAMMABILITY 3
INSTABILITY 0
SPECIAL HAZARD

HMIS III:
HEALTH 2
FLAMMABILITY 3
PHYSICAL HAZARD 0

0 = NOT SIGNIFICANT
1 = SLIGHT
2 = MODERATE
3 = HIGH
4 = EXTREME
* = CHRONIC

FULL TEXT OF OTHER ABBREVIATIONS:

ACGIH: USA. ACGIH THRESHOLD LIMIT VALUES (TLV)

ACGIH BEI: ACGIH - BIOLOGICAL EXPOSURE INDICES (BEI)

NIOSH REL: USA. NIOSH RECOMMENDED EXPOSURE LIMITS

OSHA Z-1:
USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS

ACGIH / TWA: 8-HOUR, TIME-WEIGHTED AVERAGE

ACGIH / STEL: SHORT-TERM EXPOSURE LIMIT

NIOSH REL / TWA:
TIME-WEIGHTED AVERAGE CONCENTRATION FOR UP TO A 10-HOUR WORKDAY DURING A 40-HOUR WORKWEEK

NIOSH REL / ST:
15-MINUTE TWA EXPOSURE THAT SHOULD NOT BE EXCEEDED AT ANY TIME
5 A WORKDAY

OSHA Z-1 / TWA: 8-HOUR TIME WEIGHTED AVERAGE

SOURCES OF KEY DATA USED TO COMPILE THE MATERIAL SAFETY DATA SHEET:
INTERNAL TECHNICAL DATA, DATA FROM RAW MATERIAL SDSS, OECD ECHEM PORTAL
SEARCH RESULTS AND EUROPEAN CHEMICALS AGENCY, [HTTP://ECHA.EUROPA.EU/](http://echa.europa.eu/)

REVISION DATE: 02/10/2015

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US / Z8

