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Certified Company



THE POWER OF THREE³

PHARMCO-AAPER

AND COMMERCIAL ALCOHOLS

Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300 or 202-483-7616

MATERIAL SAFETY DATA SHEETS

Part Number/Trade Name: ISOBUTYL ALCOHOL

General Information

Manufacturer: Pharmco Products Inc.
58 Vale Road
Brookfield, Connecticut 06804, USA
Phone (203) 740-3471
Fax (203) 740-3481

1101 Isaac Shelby Drive
Shelbyville, KY 40065
Phone (502) 633-0650
Fax (502) 633-0685

Ingredients/Identity Information

Ingredient: ISOBUTYL ALCOHOL (SARA III)	OSHA PEL: 100 PPM
Ingredient Sequence Number: 01	ACGIH TLV: 50 PPM; 9293
NIOSH (RTECS) Number: NP9625000	Other Recommended Limit: NONE SPECIFIED
CAS Number: 78-83-1	BY M.

Physical/Chemical Characteristics

Appearance And Odor: CLEAR,COLORLESS SOLUTION WITH MILD ALCOHOL-LIKE ODOR.	Vapor Density (Air=1): 2.6
Boiling Point: 108C,226F	Specific Gravity: 0.803 (WATER=1)
Melting Point: -108C,-226F	Evaporation Rate And Ref: 0.8 (BUTYL ACETATE=1)
Vapor Pressure (MM Hg/70 F): 9 MMHG	Solubility In Water: 8.7% @ 20C,68F
	Percent Volatiles By Volume: 100

Fire and Explosion Hazard Data

Flash Point: 98.6F,37.0C
Flash Point Method: TCC
Lower Explosive Limit: 10.9
Upper Explosive Limit: 1.6
Extinguishing Media: DRY CHEMICAL,FOAM OR CARBON DIOXIDE.DO NOT USE A SOLID STREAM OF WATER,SINCE THE STREAM WILL SCATTER AND SPREAD FIRE.
Special Fire Fighting Proc: USE NIOSH/MSHA APPROVED SCBA AND FULL PROT EQUIP. WATER SPRAY MAY BE USED TO COOL FIRE EXPOSED CONTRS. VAPOR CAN FLOW TO DISTANT IGNITION SOURCE & FLASH BACK.
Unusual Fire And Expl Hazrds: ABOVE FLASH POINT, VAPOR-AIR MIXTURES ARE EXPLOSIVE WITHIN FLAMMABLE LIMITS.

Reactivity Data

Stability: YES

Cond To Avoid (Stability): HEAT, OPEN FLAMES.

Materials To Avoid: OXIDIZING AGENTS, INORGANIC

ACIDS, ALDEHYDES, ISOCYANATES.

Hazardous Decomp Products: THERMAL DECOMPOSITION WILL PRODUCE CARBON MONOXIDE, CARBON DIOXIDE, OR ISOBUTYLENE.

Hazardous Poly Occur: NO

Conditions To Avoid (Poly): WILL NOT OCCUR.

Health Hazard Data

Route Of Entry - Inhalation: YES

Route Of Entry - Skin: YES

Route Of Entry - Ingestion: YES

Health Haz Acute And Chronic: HARMFUL IF INHALED/SWALLOWED. CAUSES EYE AND SKIN IRRITATION. CAN CAUSE SEVERE EYE BURNS. INHALATION MAY CAUSE IRRITATION OF RESPIRATORY TRACT, DROWSINESS/UNCONSCIOUSNESS. NARCOTIC AT HIGH CONCENTRATIONS. CAN CAUSE ALLERGIC SKIN REACTIONS.

Carcinogenicity - NTP: NO

Carcinogenicity - IARC: NO

Carcinogenicity - OSHA: NO

Signs/Symptoms Of Overexp: EYES: IRRIT, REDNESS, BLURRED VISION. SKIN: IRRIT.

ABSORPTION-SYMP LIKE INGEST. INGEST: NAUSEA, DROWSINESS, UNCONSCIOUS. LRG AMT-CNS/LIVER DAMAGE. INHAL: NOSE/THROAT IRRIT, COUGHING, DROWSINESS, CNS PROBLEMS.

Med Cond Aggravated By Exp: PERSONS WITH PRE-EXISTING SKIN DISORDERS OR EYE PROBLEMS, OR IMPAIRED LIVER, KIDNEY OR RESPIRATORY FUNCTION MAY BE MORE SUSCEPTIBLE TO THE EFFECTS OF THE SUBSTANCE.

Emergency/First Aid Proc: INHALATION: REMOVE TO FRESH AIR, PROVIDE CPR/OXYGEN IF NEEDED. EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES. GET MEDICAL HELP. SKIN CONTACT: WASH WITH SOAP AND WATER. GET MED ATTENTION IF SYMPTOMS PERSIST. INGESTION: DO NOT INDUCE VOMITING, DRINK 1-2 GLASSES OF WATER. GET MEDICAL HELP IMMEDIATELY.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: REMOVE IGNIT SOURCES. CLEAN-UP PERSONNEL NEED PROT CLOTHING & RESP PROT. CONTAIN & RECOVER LIQ FOR RECLAMATION WHEN POSS. OR ABSORB USING INERT ABSORBENT AND SAVE IN CONTAINERS FOR DISPOSAL.

Waste Disposal Method: DISPOSAL MUST BE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

Precautions-Handling/Storing: PROTECT FROM PHYSICAL DMG. STORE IN COOL, DRY, WELL-VENT AREA, AWAY FROM ACUTE FIRE HAZ & OXIDIZERS. OUTSIDE OR DETACHED STORE IS BEST.

Other Precautions: BOND/GROUND CONTR FOR TRANSFER TO AVOID STATIC SPARKS. USE NON-SPARKING TOOLS & EQUIP. NO SMOKING IN STOR/USE AREAS. MAINTAIN EYE WASH FOUNTAIN & QUICK-DRENCH FACILITY. DO NOT WEAR CONTACT LENSES. USE WITH ADEQ VENT. AVOID BRTHG VAPORS.

Control Measures

Respiratory Protection: USE NIOSH APPROVED SELF-CONTAINED BREATHING

APPARATUS IF TLV IS EXCEEDED OR WHEN USING IN CONFINED SPACES.
Ventilation: LOCAL AND GENERAL VENTILATION NECESSARY TO KEEP AIR
CONCENTRATION BELOW TLV.

Protective Gloves: WEAR IMPERVIOUS GLOVES.

Eye Protection: CHEMICAL WORKERS GOGGLES (FP N).

Other Protective Equipment: WEAR IMPERVIOUS PROTECTIVE CLOTHING INCLUDING
BOOTS,LAB COAT,APRON OR COVERALLS TO PREVENT SKIN CONTACT.

Work Hygienic Practices: WASH THOROUGHLY AFTER HANDLING.

Transportation Data

DOT PSN Code: GJL	IATA UN ID Number: 1993
DOT Proper Shipping Name: ISOBUTYL ALCOHOL	IATA Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. * *
DOT Class: 3	IATA UN Class: 3
DOT ID Number: UN1212	IATA Label: FLAMMABLE LIQUID
DOT Pack Group: III	AFI PSN Code: MCA
DOT Label: FLAMMABLE LIQUID	AFI Prop. Shipping Name: FLAMMABLE LIQUIDS, N.O.S. *
IMO PSN Code: HIA	AFI Class: 3
IMO Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. *	AFI ID Number: UN1993
IMO Regulations Page Number: 3345	AFI Pack Group: III
IMO UN Number: 1993	AFI Label: FLAMMABLE LIQUID
IMO UN Class: 3.3	AFI Basic Pac Ref: 7-7
IATA PSN Code: MCA	N.O.S. Shipping Name: ISOBUTYL ALCOHOL

Disposal Data

Refer to applicable regional, state and federal codes.

Label Data

Common Name: ISOBUTYL ALCOHOL
Chronic Hazard: YES
Signal Word: WARNING!
Acute Health Hazard-Slight: X
Contact Hazard-Slight: X
Fire Hazard-Moderate: X
Reactivity Hazard-Slight: X
Special Hazard Precautions: FLAMMABLE LIQUID! HARMFUL IF INHALED/
SWALLOWED. CAUSES EYE AND SKIN IRRITATION. CAN CAUSE SEVERE EYE BURNS.
INHALATION MAY CAUSE IRRITATION OF RESPIRATORY TRACT, DROWSINESS/
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VENT AREA, AWAY FROM ACUTE FIRE HAZ & OXIDIZERS. OUTSIDE OR DETACHED STORE
IS BEST. FIRST AID: INHALATION: REMOVE TO FRESH AIR, PROVIDE CPR/OXYGEN IF
NEEDED. EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES. GET MEDICAL HELP. SKIN
CONTACT: WASH WITH SOAP AND WATER. GET MED ATTENTION IF SYMPTOMS PERSIST.
INGESTION: DO NOT INDUCE VOMITING, DRINK 1-2 GLASSES OF WATER. GET MEDICAL
HELP IMMEDIATELY.
Protect Eye: Y
Protect Skin: Y
Protect Respiratory: Y

Regulatory Data

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are:

Chemical Name	CAS Number	RQ
Isobutyl alcohol	78-83-1	5,000lb

The information contained herein is based on data considered to be accurate. However, no warranty is expressed regarding the accuracy of these data or the results to be obtained from the use thereof. It is the user's obligation to determine the conditions of safe use of the product.