



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

## MATERIAL SAFETY DATA SHEETS

Part Number/Trade Name: ACETIC ANHYDRIDE  
This MSDS is valid for all grades and catalog numbers

### General Information

Company's Name: PHARMCO PRODUCTS, INC.

Company's Street: 58 VALE RD.

Company's City: BROOKFIELD

Company's State: CT

Company's Zip Code: 06804

Company's Emerg Ph #: (203) 740-3471

Company's Info Ph #: (203) 740-3471

Date MSDS Revised: Nishant-8/23/99

Safety Data Review Date: 8/23/99

Preparer's Company: PHARMCO PRODUCTS, INC.

Preparer's St Or P. O. Box: 58 VALE RD.

Preparer's City: BROOKFIELD

Preparer's State: CT

Preparer's Zip Code: 06804

### Ingredients/Identity Information

Ingredient: ACETIC ANHYDRIDE (SARA III)

Ingredient Sequence Number: 01

Percent: 100

NIOSH (RTECS) Number: AK1925000

CAS Number: 108-24-7

OSHA PEL: 5 PPM

ACGIH TLV: 5 PPM; 9394

Other Recommended Limit: NONE RECOMMENDED

### Physical/Chemical Characteristics

Appearance And Odor: CLEAR, COLORLESS  
MOBILE LIQUID WITH A VERY SHARP,  
STRONG, PUNGENT VINEGAR ODOR.

Boiling Point: 284F, 140C

Melting Point: -99F, -73C

Vapor Pressure (MM Hg/70 F): 10

Vapor Density (Air=1): 3.52

Specific Gravity: 1.082

Decomposition Temperature: UNKNOWN

Evaporation Rate And Ref: 0.46 (BUTYL  
ACETATE = 1)

Solubility In Water: COMPLETE

Percent Volatiles By Volume: 100

Corrosion Rate (IPY): UNKNOWN

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Fire and Explosion Hazard Data  
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Flash Point: 120F,49C  
Flash Point Method: CC  
Lower Explosive Limit: 2.7  
Upper Explosive Limit: 10.3  
Extinguishing Media: CARBON DIOXIDE,HALON,DRY CHEMICAL,ALCOHOL FOAM.WATER  
SPRAY MAY BE INEFFECTIVE AS AN EXTINGUISHANT.  
Special Fire Fighting Proc: WEAR FIRE FIGHTING PROTECTIVE EQUIPMENT AND A  
FULL FACED SELF CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED  
CONTAINERS  
WITH WATER FOG.KEEP UPWIND OF FIRE.  
Unusual Fire And Expl Hazrds: VAPORS ARE HEAVIER THAN AIR,CAN TRAVEL  
DISTANCES ALONG THE GROUND,AND FLASHBACK AT THE SOURCE.  
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Reactivity Data  
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Stability: NO  
Cond To Avoid (Stability): AVOID CONTACT WITH WATER. SLOWLY HYDROLIZES.  
ACETIC ACID FORMED MAY CATALIZE A VIOLENT, EXOTHERMIC REACTION.  
Materials To Avoid: AVOID CONTACT WITH WATER, ACIDS AND OXIDIZING AGENTS,  
COMBUSTIBLE MATERIALS.  
Hazardous Decomp Products: CARBON MONOXIDE, CARBON DIOXIDE.  
Hazardous Poly Occur: NO  
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Health Hazard Data  
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Route Of Entry - Inhalation: YES  
Route Of Entry - Skin: YES  
Route Of Entry - Ingestion: YES  
Health Haz Acute And Chronic: ACUTE: CORROSIVE. LACRIMATOR. SEVERE EYE  
BURNS. SKIN SENSITIZER. TOXIC BY INHALATION. MODERATELY TOXIC BY INGESTION.  
SLIGHTLY TOXIC BY DERMAL ABSORPTION. CHRONIC: MOUTH ULCERATION. POSSIBLE  
BRONCHIAL AND GASTROINTESTINAL DISTURBANCES.  
Carcinogenicity - NTP: NO  
Carcinogenicity - IARC: NO  
Carcinogenicity - OSHA: NO  
Explanation Carcinogenicity: NONE OF THE INGREDIENTS IN THIS PRODUCT IS  
LISTED BY NTP, IARC OR OSHA AS A CARCINOGEN.  
Signs/Symptoms Of Overexp: EYES: PAIN, LACRIMATION, BLURRED VISION,  
INFLAMMATION. POSSIBLE LOSS OF VISION. SKIN: SEVERE BURNS, WHITE WRINKLED  
SKIN, BLISTERS, DERMATITIS. INHALATION: HARSH COUGH, CHOKING, WHEEZING,  
CHEST PAINS, PULMONARY EDEMA WHICH MAY BE FATAL. INGESTION: SEVERE BURNS  
OF  
MOUTH, ESOPHAGUS, STOMACH WITH PAIN, VOMITING, DIARRHEA.  
Med Cond Aggravated By Exp: INDIVIDUALS WITH A HISTORY OF EYES, SKIN AND  
RESPIRATORY DISORDERS MAY BE AT INCREASED RISK FROM EXPOSURE.  
Emergency/First Aid Proc: EYES: FLUSH WITH PLENTY OF WATER FOR AT LEAST 15  
MINUTES. SEE DOCTOR IMMEDIATELY. SKIN: REMOVE CONTAMINATED CLOTHING AND  
SHOES. WASH WITH SOAP AND WATER. COVER WITH DRY DRESSING. BANDAGE. SEE  
DOCTOR IMMEDIATELY. INHALATION: REMOVE VICTIM TO FRESH AIR. GIVE OXYGEN/CPR

IF NEEDED. SEE DOCTOR IMMEDIATELY. INGESTION: DRINK LARGE AMOUNTS OF WATER OR MILK. DO NOT INDUCE VOMITING. SEE DOCTOR IMMEDIATELY.

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#### Precautions for Safe Handling and Use

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Steps If Matl Released/Spill: KEEP COMBUSTIBLES (WOOD,PAPER,OIL,ETC.) AWAY FROM SPILL.REMOVE PERSONNEL.ELIMINATE IGNITION SOURCES.VENTILATE AREA.WEAR

PROTECTIVE CLOTHING AND SCBA.ABSORB IN INERT CEMENT POWDER OR FLY ASH AND PLACE IN APPROPRIATE DISPOSAL CONTAINER AND COVER.

Neutralizing Agent: CAUSTIC SODA

Waste Disposal Method: CONTACT YOUR LOCAL ENVIRONMENTAL OFFICER. DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.EPA CODE IS D001(IGNITABLE).

Precautions-Handling/Storing: STORE IN COOL, DRY, WELL VENTILATED AREA.

PROTECT FROM PHYSICAL DAMAGE, HEAT, IGNITION SOURCES AND INCOMPATIBLE MATERIALS. KEEP CONTAINERS CLOSED.

Other Precautions: GROUND CONTAINERS WHEN TRANSFERRING LIQUID.OUTSIDE STORAGE IS PREFERRED.AVOID PITS OR DEPRESSIONS.INSIDE STORAGE SHOULD BE IN A STANDARD FLAMMABLE LIQUID STORAGE CABINET IAW NFPA 49.

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#### Control Measures

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Respiratory Protection: WHERE ENVIRONMENTAL CONTROLS ARE LACKING OR IN ENCLOSED SPACES USE EITHER A SELF-CONTAINED BREATHING APPARATUS OR A NOISH/

MSHA APPROVED RESPIRATOR FOR ACID GAS,DEPENDING ON THE AIRBORN CONCENTRATION.

Ventilation: LOCAL EXHAUST VENTILATION TO KEEP EXPOSURE LEVELS BELOW PEL. USE EXPLOSION PROOF EQUIPMENT.

Protective Gloves: PVC GLOVES.

Eye Protection: SAFETY GOGGLES AND FACESHIELD.

Other Protective Equipment: PROTECTIVE CLOTHING,AS NEEDED.PROVIDE A LOCAL EYE WASH STATION AND SAFETY SHOWER.

Work Hygienic Practices: WASH HANDS.SEPERATE WORK CLOTHES FROM STREET CLOTHES.LAUNDER WORK CLOTHES BEFORE REUSE.KEEP FOOD OUT OF THE WORK AREA.

Suppl. Safety & Health Data: NONE.

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#### Transportation Data

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DOT PSN Code: ABB  
DOT Proper Shipping Name: ACETIC ANHYDRIDE  
DOT Class: 8  
DOT ID Number: UN1715  
DOT Pack Group: II  
DOT Label: CORROSIVE, FLAMMABLE LIQUID \*  
IMO PSN Code: ACP  
IMO Proper Shipping Name: ACETIC ANHYDRIDE

IMO Regulations Page Number: 8101  
IMO UN Number: 1715  
IMO UN Class: 8  
IMO Subsidiary Risk Label: FLAMMABLE LIQUID  
IATA PSN Code: ABX  
IATA UN ID Number: 1715  
IATA Proper Shipping Name: ACETIC ANHYDRIDE  
IATA UN Class: 8  
IATA Subsidiary Risk Class: 3

IATA Label: CORROSIVE & FLAMMABLE  
LIQUID  
AFI PSN Code: ABX  
AFI Prop. Shipping Name: ACETIC  
ANHYDRIDE  
AFI Class: 8  
AFI ID Number: UN1715

AFI Pack Group: II  
AFI Label: CORROSIVE  
AFI Special Prov: A3,A6,A7,A10  
AFI Basic Pac Ref: 12-5  
MMAC Code: NR  
Additional Trans Data: RQ FOR ACETIC  
ANHYDRIDE IS 5000 LBS.

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Disposal Data

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Refer to applicable regional, state and federal codes.

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Label Data

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Label Required: YES  
Technical Review Date: 19DEC94  
MFR Label Number: UNKNOWN  
Label Status: F  
Common Name: ACETIC ANHYDRIDE  
Signal Word: DANGER!  
Acute Health Hazard-Moderate: X  
Contact Hazard-Severe: X  
Fire Hazard-Moderate: X  
Reactivity Hazard-Slight: X  
Special Hazard Precautions: ACUTE: CORROSIVE. LACRIMATOR. SEVERE EYE  
BURNS. SKIN SENSITIZER. TOXIC BY INHALATION. MODERATELY TOXIC BY INGESTION.  
SLIGHTLY TOXIC BY DERMAL ABSORPTION. CHRONIC: MOUTH ULCERATION. POSSIBLE  
BRONCHIAL AND GASTROINTESTINAL DISTURBANCES. FIRST AID: EYES: FLUSH WITH  
REMOVE CONTAMINATED CLOTHING AND SHOES. WASH WITH SOAP AND WATER. COVER  
WITH DRY DRESSING. BANDAGE. SEE DOCTOR IMMEDIATELY. INHALATION: REMOVE  
VICTIM TO FRESH AIR. GIVE OXYGEN/CPR IF NEEDED. SEE DOCTOR IMMEDIATELY.  
INGESTION: DRINK LARGE AMOUNTS OF WATER OR MILK. DO NOT INDUCE VOMITING.  
SEE DOCTOR IMMEDIATELY.  
Protect Eye: Y  
Protect Skin: Y  
Protect Respiratory: Y

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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.

--Revised by Nishant, 8/23/99