

An ISO 9001:2000
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: ACETIC ANHYDRIDE

This MSDS is valid for all grades that start with catalog number 280

General Information

Manufacturer: PHARMCO-AAPER
58 Vale Road
Brookfield, CT 06804
Phone (203) 740-3471
Fax (203) 740-3481

1101 Isaac Shelby Drive
Shelbyville, KY 040065
Phone (502) 633-0650
Fax (502) 6330685

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

Fire and Explosion Hazard Data

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.

Reactivity Data

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

Health Hazard Data

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.

Precautions for Safe Handling and Use

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.

=====
Control Measures
=====

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.

=====
Transportation Data
=====

| | |
|---|---|
| DOT PSN Code: ABB | IATA Proper Shipping Name: ACETIC ANHYDRIDE |
| DOT Proper Shipping Name: ACETIC ANHYDRIDE | IATA UN Class: 8 |
| DOT Class: 8 | IATA Subsidiary Risk Class: 3 |
| DOT ID Number: UN1715 | IATA Label: CORROSIVE & FLAMMABLE LIQUID |
| DOT Pack Group: II | AFI PSN Code: ABX |
| DOT Label: CORROSIVE, FLAMMABLE LIQUID * | AFI Prop. Shipping Name: ACETIC ANHYDRIDE |
| IMO PSN Code: ACP | AFI Class: 8 |
| IMO Proper Shipping Name: ACETIC ANHYDRIDE | AFI ID Number: UN1715 |
| IMO Regulations Page Number: 8101 | AFI Pack Group: II |
| IMO UN Number: 1715 | AFI Label: CORROSIVE |
| IMO UN Class: 8 | AFI Special Prov: A3,A6,A7,A10 |
| IMO Subsidiary Risk Label: FLAMMABLE LIQUID | AFI Basic Pac Ref: 12-5 |
| IATA PSN Code: ABX | MMAC Code: NR |
| IATA UN ID Number: 1715 | Additional Trans Data: RQ FOR ACETIC ANHYDRIDE IS 5000 LBS. |

Disposal Data

Refer to applicable regional, state and federal codes.

Label Data

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

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