

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

MATERIAL SAFETY DATA SHEETS

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Part Number/Trade Name: Sulfuric acid

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

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Ingredients/Identity Information

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Ingredient: SULFURIC ACID (SARA III) Ingredient Sequence Number: 01 Percent: 28.9 NIOSH (RTECS) Number: WS5600000 _____

CAS Number: 7664-93-9 OSHA PEL: 1 MG/M3 ACGIH TLV: 1 MG/M3; 9192

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Physical/Chemical Characteristics

Appearance And Odor: SLIGHTLY VISCOUS, CLEAR TO SLIGHTLY CLOUDY LIQUID. Boiling Point: 233F,112C Melting Point: UNKNOWN Vapor Pressure (MM Hg/70 F): UNKNOWN Vapor Density (Air=1): UNKNOWN Specific Gravity: 1.285 Decomposition Temperature: UNKNOWN Evaporation Rate And Ref: < 1.0 (ETHER = 1) Solubility In Water: COMPLETE Viscosity: UNKNOWN Corrosion Rate (IPY): UNKNOWN

Fire and Explosion Hazard Data

=== Flash Point: NOT APPLICABLE Extinguishing Media: CARBON DIOXIDE, FOAM, DRY CHEMICAL Special Fire Fighting Proc: USE A GAS MASK WITH A SULFURIC ACID ABSORBING CANISTER APPROVED BY THE U.S. BUREAU OF MINES. Unusual Fire And Expl Hazrds: SULFURIC ACID REACTS WITH STEEL AND MANY COMMON METALS TO PRODUCE HYDROGEN GAS WHICH CAN BE A FIRE AND EXPLOSION HAZARD.
=== Reactivity Data
==== Stability: YES Cond To Avoid (Stability): HIGH HEAT, MOISTURE Materials To Avoid: COMBUSTIBLE MATERIALS, NITRATES, CARBIDES, CHLORATES, POWDERED METALS Hazardous Decomp Products: OXIDES OF SULFUR, HYDROGEN SULFIDE, HYDROGEN GAS Hazardous Poly Occur: NO
=== Health Hazard Data
=== LD50-LC50 Mixture: UNKNOWN Route Of Entry - Inhalation: YES Route Of Entry - Skin: NO Route Of Entry - Ingestion: NO Carcinogenicity - NTP: NO Carcinogenicity - IARC: NO Carcinogenicity - OSHA: NO Signs/Symptoms Of Overexp: SEVERE BURNS TO SKIN AND EYES. INHALATION OF MIST FROM HOT SULFURIC ACID CAN BE INJURIOUS TO LUNGS. Emergency/First Aid Proc: IN CASE OF CONTACT IMMEDIATELY FLUSH SKIN OR EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. FOR EYES AND SKIN BURNS, GET IMMEDIATE MEDICAL ATTENTION. INHALATION: MOVE TO FRESH AIR. REMOVE AND ISOLATE CONTAMINATED CLOTHING AND SHOES. KEEP VICTIM QUIET AND MAINTAIN NORMAL TEMPERATURES.
=== Precautions for Safe Handling and Use
 === Steps If Matl Released/Spill: FLUSH WITH PLENTY OF WATER & NEUTRALIZE ACID W/SUCH AS SODA ASH,LIME,ETC;SODA ASH & LIMESTONE WILL RELEASE CO2 GAS REQUIRING ADEQUATE VENTILATION.SMALL SPILLS:TAKE UP W/SAND OR OTHER NON COMBUST.MATL ABSORBENTS.LARGE SPILLS:DIKE FAR AHEAD OF SPILL. Neutralizing Agent: SODA ASH OR LIME Waste Disposal Method: NEUTRALIZE ACID WITH ALKALI AND FLUSH TO AN APPROVED DISPOSAL AREA WITH PLENTY OF WATER IF PERMITTED BY LOCAL AND STATE REGULATIONS. IN SOME CASES, WASTE MAY HAVE TO BE HAULED AWAY BY A DISPOSAL CONTRACTOR. Precautions-Handling/Storing: FLAMMABLE HYDROGEN GAS IS GENERATED IN STEEL

DRUMS AND TANKS CONTAINING SULFURIC ACID. NO IGNITION SOURCES PERMITTED IN AREA.

Other Precautions: UNNEUTRALIZED ACID MUST NOT CONTACT SULFIDE WASTES (SUCH AS IN SEWERS) TO AVOID EVOLVING POISONOUS SULFIDE GAS. VENTILATE DRUMS WEEKLY, OR MORE FREQUENTLY IN HOT WEATHER. DO NOT STORE NEAR INCOMPATIBLES.

==== Control Measures === Respiratory Protection: INDUSTRIAL CANISTER TYPE GAS MASK APPROVED BY U.S. BUREAU OF MINES Ventilation: LOCAL EXHAUST AS REQUIRED TO REMOVE ANY MISTS OF TOXIC GASES Protective Gloves: RUBBER Eye Protection: CHEMICAL SAFETY GOGGLES Other Protective Equipment: FACE SHIELD, RUBBER APRONS, RUBBER SAFETY SHOES, PROTECTIVE CLOTHING Work Hygienic Practices: WASH THOROUGHLY AFTER HANDLING. NEVER ADD WATER TO SULFURIC ACID. ALWAYS ADD SULFURIC ACID TO WATER SLOWLY.

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Transportation Data

DOT PSN Code: BQX DOT Proper Shipping Name: BATTERY FLUID, ACID DOT Class: 8 DOT ID Number: UN2796 DOT Pack Group: II DOT Label: CORROSIVE IMO PSN Code: BWH IMO Proper Shipping Name: BATTERY FLUID, ACID IMO Regulations Page Number: SEE 8230 IMO UN Number: 2796 IMO UN Class: 8 IMO Subsidiary Risk Label: -IATA PSN Code: DAG

IATA UN ID Number: 2796 IATA Proper Shipping Name: BATTERY FLUID, ACID IATA UN Class: 8 IATA Label: CORROSIVE AFI PSN Code: DAG AFI Prop. Shipping Name: BATTERY FLUID, ACID AFI Class: 8 AFI ID Number: UN2796 AFI Pack Group: II AFI Label: CORROSIVE AFI Special Prov: A3,A7,N6,N34 AFI Basic Pac Ref: 12-5,12-10

Disposal Data

=== Landfill Ban Item: YES Disposal Supplemental Data: IN CASE OF ACCIDENTAL EXPOSURE OR DISCHARGE, cONSULT HEALTH AND SAFETY FILE FOR PRECAUTIONS. 1st EPA Haz Wst Code New: D002 1st EPA Haz Wst Name New: CORROSIVE 1st EPA Haz Wst Char New: CORROSIVITY 1st EPA Acute Hazard New: NO

Label Data

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Special Hazard Precautions: POISONOUS IF INHALED OR SWALLOWED. CONTACT

CAUSES SEVERE BURNS TO SKIN AND EYES. RUNOFF FROM FIRE CONTROL OR DILUTION WATER MAY CAUSE POLLUTION.

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.