

**Safety Data Sheet**

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section 1: Identification

Product Name PHYTONADIONE USP (PHARMA GRADE)
Commercial Name N/A
Product Use N/A
Restrictions On Use N/A

Product Code 30-5292

Company PCCA
9901 South Wilcrest
Houston, TX 77099
Phone: 1-800-331-2498
Fax: 1-800-874-5760

In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

Section 2: Hazard(s) Identification

OSHA Haz Com: N/A

CFR 1910.1200

Signal Word NON-HAZARDOUS

Hazard Statement(s) N/A

Pictogram(s) or Symbol(s)

Precautionary Statement(s):

Prevention Prevent to inhale the dust/smoke/gas/steam/spray; prevent to contact with skin, eyes or clothes
Response Keep the containers closed and away from ignition sources such as flammable, sparking or high temperature surfaces. Use explosion-proof equipment and tools.
Storage N/A
Disposal N/A

Section 3: Composition/Information on Ingredients

Substance/Mixture SUBSTANCE
Components Phytonadione
% By Weight 98
CAS# 84-80-0
Molecular Weight N/A
Chemical Formula C₃₁H₄₆O₂
Synonym(s) Vitamin K1, Phytomenadione, Phylloquinone, 2-Methyl-3-phytyl-1,4-naphthoquinone

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
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Section 4: First-Aid Measures

Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
Skin Contact	Wash off with soap and plenty of water.
Eye Contact	Flush eyes with water as a precaution.
Ingestion	N/A
Symptoms/Effects	
Acute	N/A
Delayed	N/A
Immediate Medical Attention	
N/A	

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Unsuitable Extinguishing Media	N/A
Products of Combustion	Carbon oxides
Firefighters Special Equipment and Precautions	N/A

Section 6: Accidental Release Measures

Personal Precautions: Isolate the leak contaminated areas. Keep away from ignition sources. Wear protective equipment. Do not contact with leakage. Small leak: Carefully sweep up to avoid raising dust, collect and transport to the waste disposal site. Large leak: Collect and transport to the waste disposal site.

Section 7: Handling and Storage

Handling Precautions: Normal measures for preventive fire protection. Storage General information: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage Conditions: Recommended storage temperature: 2 - 8 °C Air and moisture sensitive. Light sensitive. Store under inert gas.

Section 8: Exposure Controls/Personal Protection

Exposure Limits	Exposure Limits: China MAC(mg/m3): no data available Soviet Union MAC(mg/m3): no data available TLVTN: available TLVWN: no data
Engineering Controls	Contains no substances with occupational exposure limit values.
Personal Protection	Respiratory: Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Eye protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Body protection: impervious clothing, The type of protective equipment must be selected according to the concentration

Section 9: Physical and Chemical Properties

Appearance	clear, viscous, liquid yellow		
Odor	None		
Odor Threshold	N/A		
Melting Point	-20 °C (-4 °F)	pH	N/A
Freezing Point	N/A	Vapor Pressure	N/A
Boiling Point/Range	N/A	Vapor Density	N/A
Decomposition temperature	N/A	Viscosity	N/A
Partition Coefficient: n-octanol/water	N/A	Evaporation Rate	N/A
Flash Point	> 113 °C (> 235 °F) - closed	Autoignition temperature	N/A
Flammability	N/A	Flammability or Explosive Limits:	
		Lower	N/A
		Upper	N/A
Solubility(ies)	N/A		
Other	0.984 g/cm ³ at 20 °C (68 °F)		

Section 10: Stability and Reactivity

Reactivity	N/A
Chemical Stability	Stable under recommended storage conditions.
Hazardous Polymerization	Hazardous decomposition products formed under fire conditions
Conditions to Avoid	Light
Incompatible Materials	Strong oxidizing agents, Strong bases
Hazardous Decomposition Products	Carbon oxides

Section 11: Toxicological Information

RTECS	N/A
Acute Toxicity	
LD50 Oral - rat - >	33,487 mg/kg
LD50 Intravenous - mouse - >	6,570 mg/kg
Skin Corrosion/Irritation	
N/A	
Serious Eye Damage/Irritation	
N/A	
Respiratory or Skin Sensitization	
N/A	
Germ Cell Mutagenicity	
N/A	
Carcinogenicity	
N/A	
Reproductive Toxicity	
N/A	
Routes of Entry	
N/A	
Symptoms Related to Exposure	
N/A	

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Potential Health Effects

N/A

Target Organ(s) N/A**Section 12: Ecological Information****Ecotoxicity**

N/A

Persistence and Degradability

N/A

Bioaccumulative Potential

N/A

Mobility in Soil

N/A

Other Adverse Effects

N/A

Section 13: Disposal Considerations**Waste Disposal**

Offer surplus and non-recyclable solutions to a licensed disposal company. Dispose of as unused product.

Disposal of Container

N/A

Other Considerations

N/A

Section 14: Transport Information**DOT Classification**

N/A

Section 15: Regulatory Information**Regulations**

Regulations on Safety Management of Hazardous Chemicals (issued on Feb. 17, 1987) The detailed rules for the implementation of the regulations on safety management of hazardous chemicals (No. HLF[1992] 677) Safe use of chemicals in the workplace (No [1996]LBF 423)

Other

N/A

Section 16: Other Information

N/A