MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Vitamin AD Injection

AS SOLD BY AGRILABS

A Service of



Sparhawk Laboratories 12340 Santa Fe Trail Drive Lenexa, KS 66215

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PRODUCT NAME-IDENTITY:	CHEMICAL FAMILY:	D.O.T. HAZARD CLASSIFICATION:
Vitamin AD Injection	Nutritional (Vitamin)	Not Considered Hazardous

MANUFACTURER N	AME: Sparhawk Laboratories	EMERGENCY TELEPHONE #:
ADDRESS:	12340 Santa Fe Trail Drive	TELEPHONE # FOR INFORMATION: 913-888-7500
Lenexa, Kansas 66215		DATE PREPARED: 8/7/97

HAZARDOUS INGREDIENT IDENTITY INFORMATION

HAZARDOUS COMPONENTS (SPECIFIC CHEMICAL IDENTITY, COMMON NAMES): None considered hazardous: significant ingredients include Vitamin Propionate, Vitamin D₃, Vitamin E, N-methyl Pyrrolidone, Polyoxethylated Castor Oil, Propylene Glycol Dicaprylate, Polyxyethlene Sorbitanmono**s**leate.

PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: Not established	SPECIFIC GRAVITY:
VAPOR PRESSURE (mm Hg.): Not established	melting point: N/A
VAPOR DENSITY (Air = 1):	EVAPORATION RATE: not determined (Butyl Acetate = 1)
solubility in water: Miscible	
pH:	
APPEARANCE AND ODOR: Yellow-orange viscous liquid	l

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): Estimated -> 200 F	FLAMMABLE LIMIT:	LEL	UEL
Estimated -> 200 F		N/A	N/A
EXTINGUISHING MEDIA: Water fog, alcohol foam dry chemical or carbon dioxide for surrounding fire.			
SPECIAL FIREFIGHTING PROCEDURE: Isolate hazard. Evacuate personnel. Move containers away from area of fire if possible. Use water spray to cool fire exposed containers. Fire fighters should wear self-contained breathing apparatus and protective clothing.			
UNUSUAL FIRE & EXPLOSION HAZARDS: Va	apors density may be heavier	than air and trav	el to distant

ignition sources. Eliminate ignition sources.

REACTIVITY DATA

STABILITY:	UNSTABLE		CONDITIONS TO AVOID:
	STABLE	x	
HAZARDOUS DECOMPOSITION OF BYPRODUCTS: Exposure to fire may yield carbon monoxide, carbon dioxide and nitrous oxide fumes.			
INCOMPATIBILITY: (MATERIALS TO AVOID): Oxidizing and reducing agents, alkalis and caustic agents.			
HAZARDOUS POLYMERIZATION:	MAY OCCUR		CONDITIONS TO AVOID:
	WILL NOT OCCUR	x	

VITAMIN AD INJECTION

HEALTH HAZARD DATA

ROUTES OF ENTRY:		HEALTH HAZARD (ACUTE & CHRONIC):
SKIN/EYES?	Yes	Acute overexposure may cause irritation to eyes and skin.
INHALATION?		
INGESTION?	Yes	Acute overexposure: Ingestion of large amounts may cause nausea or vomiting.

CARCINOGENICITY: N/A

TOXICITY: Product is essentially non-toxic nutritive substance.

SIGNS & SYMPTOMS OF EXPOSURE: May cause slight irritation to eyes and skin. Ingestion may result in nausea, vomiting and impaired renal functions.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Kidney conditions and impaired renal functions may be aggravated by long term chronic exposure.

EMERGENCY & FIRST AID PROCEDURES: Eyes: Flush with large amounts of water, and seek medical attention. Skin: Thoroughly wash area with soap and water. Inhalation: Provide fresh air and if necessary, give oxygen. Ingestion: Give several glasses of water to dilute and induce vomiting. If large amounts swallowed, seek medical attention.

PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb spill on inert material (i.e. dry sand or earth) - place in appropriate waste container for disposal. Flush area with detergent and water.

WASTE DISPOSAL METHOD: Follow local, state and federal disposal requirements.

PRECAUTIONS TO BE TAKEN IN HANDLING & STORAGE: Store between 15° and 30° C (59°-86°F)

OTHER PRECAUTIONS:

CONTROL & SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:		
VENTILATION: LOCAL EXHAUST: Yes	SPECIAL:	
MECHANICAL:		
PROTECTIVE GLOVES: Rubber	EYE PROTECTION: Goggles	
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Eye wash stations and emergency showers should be provided.		
WORK/HYGIENIC PRACTICES:		
OTHER:		

The above information is believed to be accurate and represents the best information available to us at the time this Material Safety Data Sheet was prepared. The information is provided to our customers in good faith; however, no warranty, expressed or implied, is made.