

MATERIAL SAFETY DATA SHEET

ZHEJIANG NHU CO. LTD

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State: ZHEJIANG PROVINCE PRC

Tel: 86-575-6124476, 6125376, 6124428

Zip: 312500 Original Data : 08/08/1998

SECTION 1 -- PRODUCT INFORMATION

Product name: Vitamin A acetate 650,000 IU/G Powder

Common chemical name: 3,7-Dimethyl-9-(2,6,6-trimethyl-1-cyclohexene-1-yl)-2,4,6,8-nonatetraen
-1-ol acetate

Synonyms: Retinol acetate Molecular formula: $C_{22}H_{32}O_2$

Molecular Wt: 328.4 Chemical family: Vitamin

SECTION 2 – INGREDIENTS

Vitamin A acetate, gelatin, silicon dioxide, butylhydroxytoluene, starch and carbohydrate .

SECTION 3 – PHYSICAL PROPERTIES

Color: yellow to yellowish Form/Appearance: free-flowing powder

Odor: characteristic Odor intensity: faint

Solubility in water description: disperses in warm and cold water to form a stable emulsion .

Particle size distribution: 100% get through 850 μ m(20 mesh)

SECTION 4 – FIRE AND EXPLOSION DATA

Extinguishing media: Use foam, CO₂ or dry Chemical extinguishing media .

Fire fighting procedures:

Firefighters should be equipped with self-contained breathing apparatus and turn out gear.

SECTION 5 – HEALTH HAZARDS

Toxicology test data: Rat, oral LD50-- >10 G/KG

Moderately toxic

Acute overexposure effects :

Prolonged contact with eyes and skin may result in irritation .ingestion of excessive amounts of vitamin A may result in headaches, nausea, blurred vision, and decreased appetite.

Chronic overexposure effects:

Chronic overexposure to vitamin A is associated with low red blood count, low leukocyte count, joint / bone pain, fatigue, depression, skin rash, and liver &spleen abnormalities. Some cases of hypervitaminosis A, have resulted in bone changes and CNS effects Animal studies have shown that vitamin A is teratogenic in several species.

First aid procedures --skin :

Wash affected areas with soap and water. Remove and under contaminated clothing before reuse. If irritation develops, get immediate medical attention.

First aid procedure --eye :

Immediately rinse eyes with running water for 15 minutes. Get immediate medical attention.

First aid procedure ---ingestion :

If swallowed, dilute with water and immediately induce vomiting. Never give fluids or induce vomiting if the victim is unconscious or having conclusions. Get immediate medical attention .

First aid procedure ---Notes to physicians :

None known

First aid procedure ---Special precautions :

None

SECTION 6 – REACTIVITY DATA

Stability data : stable Incomparability: Oxidizers

Conditions /Hazards to avoid: Avoid exposure to oxygen and temperatures >60°C

Hazardous decomposition / polymerization:

Hazardous decomposition Products:

Acetic acid. Polymerization: Does not occur.

Corrosive properties: Not corrosive. Oxidizer properties: Not an oxidizer

SECTION 7 – PERSONAL PROTECTION

Clothing: Gloves, coveralls, apron, and boot as necessary to prevent contact .

Eyes: Chemical goggles Explosion proofing: None required.

If breathable dust is formed: Under no circumstances should the product come into contact

with the skin of pregnant women or be inhaled by them.

SECTION 8 – SPILL-LEAK / ENVIRONMENTAL

General: Spills should be contained, solidified and place in suitable containers for disposal in a licensed facility. Used absorbent materials should be stored in airtight metal containers, This mater is not regulated by RCRA or CERCIA (Superfund ")

Waste Disposal: Incinerate or bury in a licensed facility. Do not discharge into waterways or sewer systems without proper authority.

Container Disposal: Dispose of in a licensed facility. Recommend crushing or other means to prevent unauthorized reuse .

Environmental Toxicity test data:

Ready Biodegradability: Modified MITI 20---60 PERCENT

Moderately degradable

Inhibition of activated sludge < or =to 20 G/L

No inhibition

SECTION 9 – STORAGE AND HANDLING

General: Avoid exposure to air. Store in light impervious, tightly closed containers.

Do not store together with textile and similar things. Avoid contact with oxidizer. protect against temperatures above 60°C.

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END OF DATA SHEET