



MSDS Creation Date: 08/08/2003
Revision #1 Date: 10/09/2006.

Section 1 - Product and Company Information

Product Name: VITAMIN A ACETATE, 1000,000 IU/G Powder

Brand : CANAVIT A1000

Company: Canadian Feed Additives Inc. 1343 Whitby RD. W. Vancouver BC V7S 2N4

Phone :604 922 2227 Fax.: 604 922 2370

Manufacturere: NHU Company: Zhejiang NHU CO. Ltd : 4# Jiangbei, Xinchang, Zhejiang, P. R. China, 312500

Technical Phone: +86-575-6126335

Section 2 - Composition/Information on Ingredient

CAS #	Substance Name	Molecular formula	Concentration (%)	SARA 313
127-47-9	RETINYL ACETATE	C ₂₂ H ₃₂ O ₂	≥1000,000 IU/G	No

Synonyms: Retinyl acetate * all-trans-Retinyl acetate * Vitamin A acetate * trans-Vitamin A acetate

* Vitamin A alcohol acetate RTECS Number: VH6825000 Ingredients: Vitamin A acetate, gelatin, sucrose, food starch, vegetable oil, BHT

Section 3 - Hazards Identification

EMERGENCY OVERVIEW Harmful. Irritating to skin. Possible risk of harm to the unborn child. Target organ(s):

Eyes. Blood. Bones. Liver. Spleen. Central nervous system.

HMIS RATING HEALTH: 2*

FLAMMABILITY: 0

REACTIVITY: 0

NFPA RATING HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

INHALATION EXPOSURE If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT 93°C/200°F

AUTOIGNITION TEMP N/A

FLAMMABILITY N/A

EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. **Specific Hazard(s):** Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL Evacuate area.

PROCEDURE (S) OF PERSONAL PRECAUTION (S) Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. Wear disposable coveralls and discard them after use.

METHODS FOR CLEANING UP Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING User Exposure: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE Suitable: Keep tightly closed. Store in a cool dry place. Store at <25°C

Section 8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS Use only in a chemical fume hood. Safety shower and eye bath.

PERSONAL PROTECTIVE EQUIPMENT Respiratory: Government approved respirator. Hand: Compatible chemical-resistant gloves. Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES Wash contaminated clothing before reuse. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Physical State: solid

Appearance: Brown-Red to Brownish fine granular

Color: Brown-Red to Brownish

Bulk Density about 0.72 g/ml

Loss on Drying : $\leq 5.0\%$

Granularity : 100% through 20 mesh (0.84mm) $\geq 90\%$ through 40 mesh $\leq 15\%$ through 80 mesh

Section 10 - Stability and Reactivity

STABILITY Stable: This material is stable under normal handling and storage conditions. Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS Hazardous Decomposition

Products: Carbon monoxide, Carbon dioxide. HAZARDOUS

POLYMERIZATION Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE Skin Contact: Causes skin irritation. Skin Absorption: May be harmful if absorbed through the skin. Eye Contact: May cause eye irritation. Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract. Ingestion: May be harmful if swallowed.

TARGET ORGAN (S) OR SYSTEM (S) Eyes. Blood. Bones. Liver. Spleen. Central nervous system.

SIGNS AND SYMPTOMS OF EXPOSURE Acute vitamin A intoxication may occur with exposure to high concentrations. Symptoms may include sedation, irritability, headache, and peeling of the skin. Congenital abnormalities may occur after exposure to high concentrations during pregnancy. Chronic exposure to high concentrations may cause hypervitaminosis A. Symptoms may include fatigue, irritability, anorexia, dry skin, gastrointestinal disturbances, and yellow pigmentation. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA Oral Mouse 4100 mg/kg LD50 Intravenous Mouse 432 MG/KG

CHRONIC EXPOSURE - CARCINOGEN Species: Rat Route of Application: Oral Dose: 51800 MG/KG
Exposure Time: 2Y Frequency: C Result: Tumorigenic:Neoplastic by RTECS criteria. Skin and
Appendages: Other: Tumors.

Species: Rat

Route of Application: Oral

Dose: 95 GM/KG

Exposure Time: 2Y

Frequency: C

Result: Tumorigenic:Neoplastic by RTECS criteria.

Endocrine:Thyroid tumors. Skin and Appendages: Other: Tumors.

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CHRONIC EXPOSURE - TERATOGEN Result: May cause congenital malformation in the fetus.

Species: Rat
Dose: 310 MG/KG
Route of Application: Oral
Exposure Time: (10-12D PREG)
Result: Effects on Embryo or Fetus: Other effects to embryo.

Species: Rat
Dose: 1377 MG/KG
Route of Application: Oral
Exposure Time: (15-19D PREG)
Result: Specific Developmental Abnormalities: Respiratory system.

Species: Rat Dose: 826 MG/KG Route of Application: Oral Exposure Time: (12-15D PREG) Result: Effects on Embryo or Fetus: Cytological changes (including somatic cell genetic material).

Species: Rat
Dose: 310 MG/KG
Route of Application: Oral
Exposure Time: (9-11D PREG)
Result: Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Eye, ear. Specific Developmental Abnormalities: Craniofacial (including nose and tongue).

CHRONIC EXPOSURE - MUTAGEN

Species: Human
Dose: 65600 UG/L
Cell Type: Embryo
Mutation test: Cytogenetic analysis

Species: Human
Dose: 65600 UG/L
Cell Type: Embryo
Mutation test: Sister chromatid exchange

Species: Rat
Dose: 3 UMOL/L

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Cell Type: mammary gland
Mutation test: DNA inhibition
Species: Mouse
Dose: 1 UMOL/L
Cell Type: lymphocyte
Mutation test: DNA inhibition
Species: Mouse
Dose: 100 UMOL/L
Cell Type: Other cell types
Mutation test: DNA inhibition
Species: Mouse
Dose: 100 UMOL/L
Cell Type: Ascites tumor
Mutation test: DNA inhibition

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat Dose: 480 MG/KG Route of Application: Oral Exposure Time: (6-19D PREG) Result: Effects on Newborn: Live birth index (# fetuses per litter; measured after birth). Effects on Newborn: Viability index (e.g., # alive at day 4 per # born alive). Effects on Newborn: Growth statistics (e.g., reduced weight gain).

Species: Rat
Dose: 1377 MG/KG
Route of Application: Oral
Exposure Time: (15-19D PREG)
Result: Effects on Newborn: Stillbirth.

Species: Rat
Dose: 1205 MG/KG
Route of Application: Oral
Exposure Time: (6-19D PREG)
Result: Effects on Newborn: Viability index (e.g., # alive at day 4 per # born alive).

Section 12 - Ecological Information

No data available.



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Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT Proper Shipping Name: None Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport. IATA Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION Symbol of

Danger: Xn Indication of Danger: Harmful.

R: 63 38 Risk Statements: Possible risk of harm to the unborn child. Irritating to skin.

S: 36/37 Safety Statements: Wear suitable protective clothing and gloves.

US CLASSIFICATION AND LABEL TEXT Indication of Danger: Harmful. Risk Statements: Irritating to skin. Possible risk of harm to the unborn child. Safety Statements: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wear suitable protective clothing, gloves, and eye/face protection. US Statements: Target organ(s): Eyes. Blood. Bones. Liver. Spleen. Central nervous system.

UNITED STATES REGULATORY INFORMATION *US Inventory Issues:* This product is exempt from TSCA because it is solely for FDA-regulated use

SARA Title III Hazard Classes:

Fire Hazard: No

Reactive Hazard: No

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Release of Pressure: No
Acute Health Hazard: No
Chronic Health Hazard: No

SARA Extremely Hazardous Substances/CERCLA Hazardous Substances: None California Proposition 65:
This product does not contain any components that are regulated under Proposition 65.

Section 16 - Other Information

DISCLAIMER For R&D use only. Not for drug,
household or other uses. WARRANTY

The information contained herein is, to the best of ZHEJIANG NHU CO. LTD's (NHU) knowledge, complete and accurate. NHU, however, uses many sources and references for gathering this information. Thus, NHU cannot guarantee completeness or accuracy and disclaims all liability for its handling or use .