



STUART PRODUCTS^{INC}

MATERIAL SAFETY DATA SHEET

VITAL E-Repro

Revised May 3, 2012

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: VITAL E-Repro (Vitamins E A and D injection)
Chemical Name: N/A
Chemical Family: N/A
Chemical Formula: N/A

STUART PRODUCTS, INC.
112 Bedford Road
Bedford, TX 76022

Company Contact: Dr. Rob Stuart
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2. COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT USE: Veterinary product
CHEMICAL FORMULA: Mixture

The formulation for this product is proprietary information. Only hazardous ingredients in concentrations of 1% or greater and/or carcinogenic ingredients in concentrations of 0.1% or greater are listed in the Chemical Composition table. Active ingredients in any concentration are listed. For additional information about carcinogenic ingredients see Section 3.

Chemical Composition
INGREDIENT: Vitamin E (d-alpha-tocopherol)
CAS No. 10191-41-07695-91-2

INGREDIENT: Vitamin A (retinyl palmitate)
CAS No. 79-81-2

INGREDIENT: Vitamin D3 (Cholecalciferol)
CAS No. 67-97-0

INGREDIENT: Ethyl Alcohol
CAS No. 64-17-5

INGREDIENT: Benzyl Alcohol
CAS No. 100-51-6

3. HAZARDS IDENTIFICATION

Clear solution with alcohol odor. Harmful if swallowed. May be irritating to eyes, skin or respiratory tract. May cause allergic reactions in susceptible individuals.

Potential Health Effects: The toxicological properties of this mixture have not been fully characterized in humans or animals. However, there are data to describe the toxicological properties of the individual ingredients. The following summary is based upon available information about the individual ingredients of the mixture, or of the expected properties of the mixture.

Vitamin E may cause skin and eye irritation following acute exposure. In animal reproduction studies vitamin E has been shown to cause developmental effects. However, there are limited data to show that no malformations were reported in children of women who ingested high daily doses of vitamin E during pregnancy. Therefore, the relevance of this animal data to human experience is inconclusive.

Ethanol is an eye, nose, and mucous membrane irritant. It may cause skin irritation or sensitization after prolonged exposure. Acute effects of ethanol may include headache, dizziness, nausea, sensations of warmth and cold, numbness, fatigue, breathing difficulty, coughing, tearing, vision impairment, incoordination, decreased reaction time, alteration of mood and personality, slurred speech, coma and respiratory depression. Chronic effects may include concentration difficulty, sleepiness, kidney and liver damage, and cardiac effects. Chronic ingestion of ethanol may cause cancer of the oral cavity, pharynx, larynx, esophagus, and liver. Oral ingestion of alcohol during pregnancy may cause Fetal Alcohol Syndrome (FAS) including joint, limb, and cardiac abnormalities and behavioral and learning impairment. There have been no reports of FAS as a result of occupational handling of ethanol.

Listed Carcinogens: Ethanol (Ethyl Alcohol) CAS NO. 64-17-5

Benzyl alcohol is corrosive and irritating in high concentrations. It caused eye irritation and can be absorbed through skin with anesthetic or irritant effect. Acute exposure to benzyl alcohol causes nausea, vomiting, diarrhea, CNS depression, and dizziness. Inhalation of benzyl alcohol or its vapor may cause irritation of upper respiratory tract. When injected, benzyl alcohol may produce severe irritation of the

gastrointestinal tract, followed by nausea, vomiting, cramps and diarrhea; tissue ulceration may result. Chronic exposure to benzyl alcohol has been reported to cause allergic contact inflammation. Its effects are presumed to be similar to those effects observed following acute exposure. Prolonged or excessive inhalation may result in headache, nausea, vomiting, and diarrhea. Respiratory stimulation, respiratory and muscular paralysis, convulsions, narcosis, and death may occur following excessive exposure.

4. FIRST AID MEASURES

INHALATION: Remove to fresh air. If any trouble breathing, get immediate medical attention. Administer artificial respiration if breathing has ceased. If irritation or symptoms occur or persist, consult a physician.

SKIN CONTACT: In case of skin contact, while wearing protective gloves carefully remove and contaminated clothing, including shoes, and wash skin thoroughly with soap and water. If irritation or symptoms occur or persist, consult a physician.

EYE CONTACT: In case of eye contact, immediately rinse eyes thoroughly with plenty of water. If wearing contact lenses, remove only after initial rinse, and continue rinsing eyes for at least 15 minutes. If irritation occurs or persists, consult a physician.

INGESTION: Rinse mouth and drink a glass of water. Do not induce vomiting. If symptoms persist, consult a physician.

5. FIRE FIGHTING MEASURES

FLAMMABILITY DATA:

FLASH POINT: < 22 deg C Method: Closed cup

FLAMMABILITY: Flammable

SPECIAL FIRE FIGHTING PROCEDURES: Wear full protective clothing and self-contained breathing apparatus (SCBA).

SUITABLE EXTINGUISHING MEDIA: Water, carbon dioxide, foam, or dry chemical.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Keep personnel away from the clean-up area. Wear appropriate personal protective equipment as specified in Section 8.

SPILL RESPONSE/CLEANUP: All spills should be handled according to site requirements and based on precautions cited in the MSDS. In the case of liquids, use proper absorbent materials. For large liquid spills or those outside enclosure or hood, appropriate emergency response personnel should be notified. In manufacturing and large-scale operations, HEPA vacuuming prior to wet mopping or cleaning is required.

7. HANDLING AND STORAGE

HANDLING: Keep containers adequately sealed during material transfer, transport or when not in use.

Appropriate handling of this material is dependent on many factors, including physical form, duration and frequency of process or task, and effectiveness of engineering controls. Site-specific risk assessments should be conducted to determine the feasibility and the appropriateness of all exposure control measures. See Section 8 (Exposure Controls) for additional guidance.

STORAGE: Store in a cool, dry, well ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

The following guidance applies to the handling of the active ingredient(s) in this formulation

EXPOSURE CONTROLS: The health hazard risks of handling this material are dependent on many factors, including physical form, duration and frequency of process or task, and effectiveness of engineering controls. Site-specific risk assessments should be conducted to determine the feasibility and the appropriateness of all exposure control measures. Exposure controls for normal operating or routine procedures follow a tiered strategy. Engineering controls are the preferred means of long-term or permanent exposure control. If engineering controls are not feasible, substitution of approved materials or appropriate use of personal protective equipment (PPE) may be considered as alternative control measures. However, PPE should not be used as a method of permanent or long-term exposure control. Exposure controls for non-routine operations must be evaluated and addressed as part of the site-specific risk assessment.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT (PPE):

Respiratory Protection: In laboratories and small-scale operations, respirators are not normally required; however, appropriate respiratory protection may be required in situations where exposure (e.g. spills, process upsets, or non-routine maintenance) may exceed any available recommended exposure limit. Consult your site safety staff for guidance.

Skin Protection: Gloves that provide an appropriate barrier to the skin are recommended if there is potential for contact with this material. Consult your site safety staff for guidance.

Eye Protection: Safety glasses with side shields. Use of goggles or full face protection may be required if there is potential for contact with this material. Consult your site safety staff for guidance.

Body Protection: In small-scale or laboratory operations, lab coats or equivalent protection is required. Disposable Tyvek or other dust impermeable suit should be considered based on procedure or level of exposure. Use of additional PPE such as shoe coverings, gauntlets, hood, or head covering may be necessary. Consult your site safety staff for guidance.
In large-scale or manufacturing operations, disposable Tyvek or other dust impermeable suit is recommended and based on level of exposure. Use of additional PPE such as shoe coverings, gauntlets, hood, or head covering may be necessary. Consult your site safety staff for guidance.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM: Solution
COLOR: Clear
ODOR: Characteristic alcohol
SOLUBILITY: Water: Not determined.

10. STABILITY AND REACTIVITY

STABILITY/REACTIVITY: Stable under normal conditions.
CONDITIONS AND MATERIALS TO AVOID: Open flames and high temperatures.
HAZARDOUS DECOMPOSITION PRODUCTS/REACTIONS: Carbon oxides

11. TOXICOLOGICAL INFORMATION

The toxicological properties of this material have not been fully characterized in humans or animals.

12. ECOLOGICAL INFORMATION

Ecotoxicity data and environmental data on this material have not been characterized. All ingredients are expected to be readily biodegradable.

13. DISPOSAL CONSIDERATIONS

MATERIAL WASTE: Disposal must be in accordance with applicable federal, state, and or local regulations. Incineration is the preferred method of disposal, when appropriate. Operations that involve the crushing or shredding of waste materials or returned goods must be handled to meet the recommended exposure limit.

PACKAGING AND CONTAINERS: Disposal must be in accordance with applicable federal, state, and or local regulations

14. TRANSPORT INFORMATION

Refer to site-specific procedures and requirements for additional guidance.

IATA CLASSIFICATION:

Proper Shipping Name: Ethanol Solutions
Hazard Class: 3
UN Number: UN 1170
Packing Group: II

ADR CLASSIFICATION

Proper Shipping Name: Ethanol Solutions
Hazard Class: 3
UN Number: UN 1170
Packing Group: II

IMDG CLASSIFICATION

Proper Shipping Name: Ethanol Solutions
Hazard Class: 3
UN Number: UN 1170
Packing Group: II

15. REGULATORY INFORMATION

Safety Phrases:

KEEP OUT OF REACH OF CHILDREN
KEEP AWAY FROM SOURCES OF IGNITION-NO SMOKING
IF SWALLOWED, SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.

16. OTHER INFORMATION

Hazard Rating	-Health:	1 Slight
	-Fire:	3 High
	-Reactivity:	0 Negligible

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