1. IDENTIFICATION OF THE SUBSTANCE/PREPARATIONS AND OF THE COMPANY UNDERTAKING

Product Name: Dermacool® HC Spray
Product Description: Topical spray for dogs, cats, and horses
Manufacturer/Supplier: Virbac AH, Inc.
Address: P.O. Box 162059
Fort Worth, Texas 76161
Phone Number: (800) 338-3659 for Technical Support
Chemtrec Number (24 hour): (800) 424-9300
Emergency Number: (800) 338-3659 for Human and Animal Medical Emergencies
MSDS Revision Date: March 3, 2011
Supersedes MSDS Dated: March 3, 2009

Material Safety Data Sheet in compliance with OSHA’s Hazcom Standard (29 CFR 1910.1200)

2. HAZARDS IDENTIFICATION

Emergency Overview
CAUTION!
Avoid contact with eyes and mucous membranes.
Avoid breathing spray, mist or vapors.
Harmful if swallowed.
Flammable material.
Keep out of reach of children.
Read entire label before each use.

Routes of Entry
Eye contact - Skin contact - Ingestion - Inhalation

Carcinogenic Status
Not considered carcinogenic by NTP, IARC, and OSHA.

Target Organs
Eyes - Skin - Respiratory System - Central Nervous System - Kidneys - Liver - Heart

Health Effects - Eyes
Contact with eyes can cause irritation.

Health Effects - Skin
Contact with skin may cause slight irritation.

Health Effects - Ingestion
Harmful if swallowed. Ingestion of this material may cause gastrointestinal effects such as nausea, vomiting and diarrhea. Repeated exposure may cause adverse kidney, liver, heart and central nervous system effects.

Health Effects - Inhalation
Prolonged, repeated exposure to vapor, spray or mist may cause irritation of nose, throat and respiratory tract and adverse kidney effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene Glycol</td>
<td>57-55-6</td>
<td>45 - 55%</td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>40 - 50%</td>
</tr>
</tbody>
</table>

Revision Date: March 3, 2011
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocortisone</td>
<td>50-23-7</td>
<td>~1%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

**Eyes**
Immediately flood the eye with plenty of water for at least 15-20 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

**Skin**
If irritation develops wash skin thoroughly with soap and water. Obtain medical attention if redness or soreness persists.

**Ingestion**
Call a poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Inhalation**
Remove person to fresh air. Seek medical attention if symptoms persist.

**Advice to Physicians**
Treat symptomatically.

5. FIRE - FIGHTING MEASURES

**Extinguishing Media**
Use foam, dry chemical or carbon dioxide.

**Unusual Fire and Explosion Hazards**
Can release hazardous vapors during a fire.

**Protective Equipment for Fire-Fighting**
Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Wear suitable protective clothing. Wipe up and transfer into suitable containers for recovery or disposal. Material is flammable so avoid contact with ignition sources.

7. HANDLING AND STORAGE

Store in original container in a cool, dry place. Store away from children and pets. Do not store near foodstuffs. Do not contaminate water, food or feed by storage. Wear appropriate protective clothing. Avoid contact with eyes. Wash hands thoroughly after handling and before eating, drinking or smoking. Storage area should be cool, dry, and well ventilated. Store away from incompatible materials, out of direct sunlight and away from sources of ignition (heat, sparks, flames, pilot lights).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational Exposure Standards**
Exposure limits are listed below, if they exist.

**Ethyl Alcohol**
ACGIH: 1000 ppm 15-min STEL
OSHA: PEL 1000ppm (1900 mg/m³) 8h TWA
8. EXPOSURE CONTROLS/PERSOAL PROTECTION

**Propylene Glycol**
None established

**Hydrocortisone**
None established

**Engineering Control Measures**
No specific measures necessary. Good general room ventilation is expected to be adequate to control airborne levels.

**Respiratory Protection**
Not required under normal conditions of use. Professional groomers and those with repeated and extended exposures should consider the use of respiratory protection if there is a risk of exposure to high vapor concentrations or aerosols. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

**Hand Protection**
Chemical resistant gloves.

**Eye Protection**
Safety glasses or goggles.

**Body Protection**
Waterproof apron.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical State</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Clear to light blue</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Menthol</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Specific Gravity</strong></td>
<td>1.04</td>
</tr>
<tr>
<td><strong>Boiling Range/Point (°C/F)</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Melting Point (°C/F)</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flash Point (PMCC) (°F)</strong></td>
<td>Ethanol: 55°F</td>
</tr>
<tr>
<td></td>
<td>Propylene Glycol: 211°F</td>
</tr>
<tr>
<td><strong>Explosion Limits (%)</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Vapor Pressure</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Density</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Solubility in Water</strong></td>
<td>Soluble</td>
</tr>
<tr>
<td><strong>Vapor Density (Air = 1)</strong></td>
<td>No data available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

**Stability**
Stable under normal conditions.

**Conditions to Avoid**
Heat - high temperatures

**Materials to Avoid**
Strong oxidizers - strong acids - bases

**Hazardous Polymerization**
Will not occur.

**Hazardous Decomposition Products**
Oxides of carbon – organic compounds
11. TOXICOLOGICAL INFORMATION

See product packaging for additional information.

Acute Toxicity
Propylene Glycol: Oral LD50 (rat) 22,000 mg/kg
Ethyl Alcohol: Oral LD50 (rat) 7060 mg/kg

Specific Target Organ Systemic Toxicity (single and repeat)
Propylene Glycol: In animal studies propylene glycol has been shown to cause kidney damage.
Ethyl Alcohol: Chronic exposure can result in adverse liver, heart and central nervous system effects.

Serious Eye damage/Eye Irritation
Propylene Glycol: Mild eye irritation (rabbit)
Ethyl alcohol: Causes severe eye irritation.

Skin Corrosion/Irritation
Propylene Glycol: Mild skin irritation (human, 7d)
Glycerin: Human skin tests have shown glycerin to be slightly irritating.

Respiratory or Skin Sensitization
No relevant studies identified.

Carcinogenicity
Not considered carcinogenic by NTP, IARC, and OSHA.

Germ Cell Mutagenicity
Hydrocortisone was negative for gene mutation in Salmonella typhimurium (with and without activation)
and for unscheduled DNA synthesis in rat hepatocytes. It was positive for chromosomal aberrations in
human lymphocytes and for sister chromatid exchange in mouse bone marrow.

Toxicity to Reproduction
Ethyl Alcohol: Ingestion of ethyl alcohol during pregnancy has caused adverse reproductive effects
(fetal alcohol syndrome) but only at doses that are maternally toxic.
Hydrocortisone: Animal studies with some corticosteroids have shown cleft palate and inhibited fetal
growth. Most studies have concluded that therapeutic use of corticosteroids by pregnant women does
not cause adverse effects on the fetus. Small increase in cleft palate was seen in some human studies.
Infants born to mothers who received substantial doses of corticosteroids during pregnancy should be
observed for signs of hypoadrenalism.

12. ECOLOGICAL INFORMATION

Mobility
No relevant studies identified.

Persistence/Degradability
No relevant studies identified.

Bio-accumulation
No relevant studies identified.

Ecotoxicity
Propylene Glycol: EC50 Daphnia magna > 10,000 mg/l 48 h

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable local and national regulations.

14. TRANSPORT INFORMATION

DOT CFR 172.101 Data
Consumer Commodity, ORM-D (US ground shipment only)

UN Proper Shipping Name
Consumer Commodity, ORM-D (US ground shipment only)

UN Class
ORM-D

UN Number
None.

UN Packaging Group
None.
14. TRANSPORT INFORMATION

Classification for AIR Transportation (IATA)
Consult current IATA Regulations prior to shipping by air.

15. REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TSCA Listing</strong></td>
</tr>
<tr>
<td>This product contains ingredients that are listed on or exempt from listing on the EPA Toxic Substance Control Act Chemical Substance (TSCA) Inventory.</td>
</tr>
<tr>
<td><strong>DSL (Canadian) Listing</strong></td>
</tr>
<tr>
<td>This product contains ingredients that have not been verified for listing on the Domestic Substance List (DSL).</td>
</tr>
<tr>
<td><strong>WHMIS Classification</strong></td>
</tr>
<tr>
<td>B3, D.2.B</td>
</tr>
<tr>
<td>This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.</td>
</tr>
<tr>
<td><strong>MA Right To Know Law</strong></td>
</tr>
<tr>
<td>This product contains the following chemicals on the Massachusetts Right to Know Law: Ethanol (64-17-5)</td>
</tr>
<tr>
<td><strong>PA Right To Know Law</strong></td>
</tr>
<tr>
<td>This product contains the following chemicals on the Pennsylvania Hazardous Substance List: Propylene Glycol (57-55-6) - Ethanol (64-17-5)</td>
</tr>
<tr>
<td><strong>NJ Right To Know Law</strong></td>
</tr>
<tr>
<td>This product contains the following chemicals on the New Jersey Workplace Hazardous Substance List: Ethanol (64-17-5)</td>
</tr>
<tr>
<td><strong>California Proposition 65</strong></td>
</tr>
<tr>
<td>This product contains the following materials which the State of California has found to cause cancer, birth defects or other reproductive harm: None</td>
</tr>
<tr>
<td><strong>SARA Title III Sect. 311/312 Categorization</strong></td>
</tr>
<tr>
<td>Immediate (acute) Delayed (chronic) Fire Hazard</td>
</tr>
<tr>
<td><strong>SARA Title III Sect. 313</strong></td>
</tr>
<tr>
<td>This product contains the following chemicals that are listed in Section 313 at or above de minimis concentrations: None</td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFPA Code for Flammability - 2</td>
</tr>
<tr>
<td>NFPA Code for Health - 1</td>
</tr>
<tr>
<td>NFPA Code for Reactivity - 0</td>
</tr>
<tr>
<td>NFPA Code for Special Hazards – 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS Code for Flammability - 2</td>
</tr>
<tr>
<td>HMIS Code for Health – 1*</td>
</tr>
<tr>
<td>HMIS Code for Reactivity - 0</td>
</tr>
<tr>
<td>HMIS Code for Personal Protection - See Section 8</td>
</tr>
</tbody>
</table>
16. OTHER INFORMATION

Abbreviations
ACGIH: American Conference of Governmental Industrial Hygienists
BOD: Biological Oxygen Demand
CAS#: Chemical Abstracts Service Number
FIFRA: Federal Insecticide, Fungicide and Rodenticide Act
IARC: International Agency for Research on Cancer
LC50: Lethal Concentration 50%
LD50: Lethal Dose 50%
N/A: Denotes no applicable information found or available
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TSCA: Toxic Substance Control Act

For further Information call: (800) 338-3659

Prepared By: EnviroNet LLC

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