

# SAFETY DATA SHEETS

**This SDS packet was issued with item:**

078348090

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

078012118 078348108



**MATERIAL SAFETY DATA SHEET**  
**KETOCHLOR<sup>®</sup> Medicated Shampoo**  
**with SPHERULITES<sup>®</sup> Microcapsules**  
**ANTI-IRRITANT ANTI-ADHESIVE TECHNOLOGY<sup>®</sup>**  
**Product Codes: 002808, 002810 and 002816**

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

<b>Product Name</b>	KETOCHLOR <sup>®</sup> Medicated Shampoo with SPHERULITES <sup>®</sup> Microcapsules
<b>Product Description</b>	ANTI-IRRITANT ANTI-ADHESIVE TECHNOLOGY <sup>®</sup> Shampoo for dogs, cats and horses
<b>Manufacturer/Supplier</b>	Virbac AH, Inc.
<b>Address</b>	P.O. Box 162059 Fort Worth, Texas 76161
<b>Phone Number</b>	(800) 338-3659 for Technical Support
<b>Chemtrec Number (24 hour)</b>	(800) 424-9300
<b>Emergency Number:</b>	(800) 338-3659 for Human and Animal Medical Emergencies
<b>MSDS Revision Date:</b>	March 3, 2011
<b>Supersedes MSDS Dated:</b>	May 10, 2010

*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 skin.  
Harmful if swallowed.  
Avoid breathing vapors.  
Keep out of reach of children.  
Read entire label before each use.

**Routes of Entry**

Eye contact - Skin contact - Ingestion - Inhalation - Absorption

**Carcinogenic Status**

Not considered carcinogenic by NTP, IARC, and OSHA.

**Target Organs**

Eyes - Skin - Respiratory System - Liver - Endocrine System - Reproductive System

**Health Effects - Eyes**

Contact with eyes can cause irritation.

**Health Effects - Skin**

Contact with skin can cause irritation.

**Health Effects - Ingestion**

Harmful if swallowed. Ingestion of this material may cause gastrointestinal effects such as nausea, vomiting and diarrhea. Prolonged, repeated exposure may cause adverse liver, endocrine and reproductive effects.

**Health Effects - Inhalation**

No adverse effects are expected during normal conditions of use. Prolonged, repeated inhalation may cause irritation or nose, throat and respiratory tract. Prolonged, repeated exposure may cause adverse liver, endocrine and reproductive effects.



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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Component Name	CAS Number	Concentration
Chlorhexidene Gluconate	18472-51-0	~2%
Sodium Olefin Sulfonate	68439-57-6	1 - 10%
Surfactant(s)	N/A	1 - 5%
Lactic Acid	79-33-4	0.1 - <1%
Cocamidopropyl betaine	61789-40-0	1 - 5 %
Ketoconazole	65277-42-1	~1%

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### 4. FIRST AID MEASURES

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#### 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.

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### 5. FIRE - FIGHTING MEASURES

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#### Extinguishing Media

Use extinguishing media appropriate for surrounding materials.

#### 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.

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### 6. ACCIDENTAL RELEASE MEASURES

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Wear appropriate protective clothing. Wipe up and transfer into suitable containers for recovery or disposal. Prevent the material from entering drains or watercourses.

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### 7. HANDLING AND STORAGE

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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. Store at room temperature between 59°F and 86°F.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**Occupational Exposure Standards**

Exposure limits are listed below, if they exist.

**Chlorhexidene Gluconate**

None established

**Surfactant(s)**

None established

**Sodium Olefin Sulfonate**

None established

**Cocamidopropyl Betaine**

None established

**Lactic Acid**

None established

**Ketoconazole**

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. 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**

Elbow length chemical resistant gloves.

**Eye Protection**

Safety glasses or goggles.

**Body Protection**

Waterproof apron.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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Physical State	Liquid
Color	Yellow/orange
Odor	Floral
pH	No data available
Specific Gravity	No data available
Boiling Range/Point (°C/F)	No data available
Melting Point (°C/F)	No data available
Flash Point (PMCC) (°C/F)	Not flammable
Explosion Limits (%)	No data available
Vapor Pressure	No data available
Density	No data available
Solubility in Water	Soluble
Vapor Density (Air = 1)	No data available

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**10. STABILITY AND REACTIVITY**

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**Stability**

Stable under normal conditions.



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**10. STABILITY AND REACTIVITY**

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**Conditions to Avoid**

Heat - high temperatures

**Materials to Avoid**

Strong oxidizers - acids - bases

**Hazardous Polymerization**

Will not occur.

**Hazardous Decomposition Products**

Oxides of carbon – oxides of nitrogen - ammonia – low molecular weight hydrocarbons – oxides of sulfur

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**11. TOXICOLOGICAL INFORMATION**

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See product packaging for additional information.

**Acute Toxicity**

Chlorhexidine Gluconate: Oral LD50 (rat) (male) 2,292 mg/kg (female) 3,055 mg/kg (analogous compound) Dermal LD50 (rabbit) >2000 mg/kg (analogous compound) Inhalation LC50 (rat) 0.30mg/l (males), 0.43 mg/l (females) (analogous compound)

Lactic acid: LD50 Rat oral 3730 mg/kg, LC50 Rat inhalation 7.94 mg/L/4 hr

Sodium Olefin Sulfonate: Oral LD50 (rat) 1300-2400 mg/kg, Dermal LD50 (rabbit) 1130-2150 mg/kg

Cocamidopropyl betaine: Oral LD50 (rat) 5000 mg/kg

Ketoconazole: LD50 Oral (rat) 227 mg/kg

**Specific Target Organ Systemic Toxicity (single and repeat)**

Chlorhexidine Gluconate: In a dermal toxicity study with rabbits that were topically treated, systemic liver effects were noted at the 500mg/kg/day level. (analogous compound)

Cocamidopropyl betaine: 28 day Subchronic Toxicity Study (rat) (doses: 100, 500, 1000 mg/kg): No adverse effects observed at 100 mg/kg

Ketoconazole: When used orally, ketoconazole has been associated with hepatic toxicity. Adverse effects to the endocrine system have been reported in humans being treated with ketoconazole.

**Serious Eye damage/Eye Irritation**

Chlorhexidine Gluconate: Irritating to the eye. (analogous compound)

Surfactant: Severely irritating (7 days, Draize, rabbit, 10% suspension)

Sodium Olefin Sulfonate: Causes moderate eye irritation at 10% active and no irritation at 1% active (Primary Eye Irritation- rabbit 24 hr)

Cocamidopropyl betaine: Causes moderate eye (Primary Eye Irritation - rabbit)

**Skin Corrosion/Irritation**

Surfactant: Moderately irritating (72h, Draize, rabbit, 10% suspension)

Chlorhexidine Gluconate: Subchronic toxicity, rat, dermal – dermal irritant (analogous compound)

Sodium Olefin Sulfonate: Causes moderate skin irritation at 10% (Primary Skin Irritation - rabbit 24hr), Slight Skin irritation at 1% active (Primary Irritation Patch Test - human)

Cocamidopropyl betaine: Causes mild skin irritation (Primary Skin Irritation - rabbit)

**Respiratory or Skin Sensitization**

Sodium Olefin Sulfonate: Not a dermal sensitizer (Dermal Sensitization)

Cocamidopropyl betaine: No evidence of delayed contact hypersensitivity (guinea pig- Delayed Contact Sensitization Study) or sensitization ( Human Patch Test)

**Carcinogenicity**

Sodium Olefin Sulfonate: No increased incidences of tumors in rats fed up to 500ppm (rat)

Cocamidopropyl betaine: Not a carcinogen (Carcinogenicity Study- dermal - mice -20 months)

Ketoconazole: No evidence of carcinogenicity was found with oral or topical ketoconazole administration in studies of rats and mice.



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**11. TOXICOLOGICAL INFORMATION**

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**Germ Cell Mutagenicity**

Chlorhexidine Gluconate: Gene mutation – no adverse effect (analogous compound)  
Chlorhexidine Gluconate: Chromosome effects – no adverse effects (analogous compound)  
Chlorhexidine Gluconate: DNA Damage – no adverse effects (analogous compound)  
Lactic acid: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.  
Sodium Olefin Sulfonate: Not mutagenic (Ames test)  
Cocamidopropyl betaine: Not mutagenic (Ames test and Mouse Micronuclear Assay)  
Ketoconazole: There was no evidence of mutagenicity with the Ames salmonella microsomal activator assay. In addition, ketoconazole single oral doses as high as 80 mg/kg were not mutagenic to germ cells (dominant lethal test in male and female mice). Ketoconazole was also not genotoxic based on the in vivo sister chromatid exchange assay (humans) and dominant lethal and micronucleus tests (mice)

**Toxicity to Reproduction**

Chlorhexidine Gluconate: Teratology- rat – no adverse effect (analogous compound)  
Lactic acid: A reproductive toxicity study in mice (oral) showed maternal effects and developmental abnormalities to the fetal musculoskeletal system.  
Sodium Olefin Sulfonate: No reproductive or developmental effects were observed at doses that show no or slight maternal toxicity (up to 2 mg/kg)  
Ketoconazole: Teratogenicity, embryotoxicity, maternal toxicity, and dystocia have been observed in rats given oral ketoconazole, possibly due to the sensitivity of female rats to the drug. Ketoconazole has been shown to be present in human milk. However, it is not known whether topical ketoconazole is systemically absorbed in sufficient quantities to produce detectable levels in breast milk. Ketoconazole impaired the reproductive performance of male and female rats.

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**12. ECOLOGICAL INFORMATION**

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**Mobility**

No relevant studies identified.

**Persistence/Degradability**

Glycol: Inherently biodegradable.

**Bio-accumulation**

No relevant studies identified.

**Ecotoxicity**

Chlorhexidine Gluconate: LC50 Oncorhynchus Mykiss (Rainbow trout, Donaldson trout) 1.9 ppm/96 hr  
LC50 Lepomis macrochirus (Bluegill sunfish) 0.6 ppm/96 hr (analogous compd)

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**13. DISPOSAL CONSIDERATIONS**

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

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**14. TRANSPORT INFORMATION**

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Contact supplier for transport information.

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**15. REGULATORY INFORMATION**

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**US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS**

**TSCA Listing**

This product contains an ingredient that is not listed on the EPA Toxic Substance Control Act Chemical Substance (TSCA) Inventory.





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**15. REGULATORY INFORMATION**

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**DSL (Canadian) Listing**

This product contains ingredients that have not been verified for listing on the Domestic Substance List (DSL).

**WHMIS Classification**

D.2.A

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.

**MA Right To Know Law**

This product contains the following chemicals on the Massachusetts Right to Know Law: None

**PA Right To Know Law**

This product contains the following chemicals on the Pennsylvania Hazardous Substance List: None

**NJ Right To Know Law**

This product contains the following chemicals on the New Jersey Workplace Hazardous Substance List: None

**California Proposition 65**

This product contains the following materials which the State of California has found to cause cancer, birth defects or other reproductive harm: Acrylamide (79-06-1) trace – Formaldehyde (50-00-0) trace

**SARA Title III Sect. 311/312 Categorization**

Immediate (acute) Delayed (chronic)

**SARA Title III Sect. 313**

This product contains the following chemicals that are listed in Section 313 at or above de minimis concentrations: None

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**16. OTHER INFORMATION**

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**NFPA Ratings**

NFPA Code for Flammability - 0

NFPA Code for Health - 1

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards - 0

**HMIS Ratings**

HMIS Code for Flammability - 0

HMIS Code for Health - 1\*

HMIS Code for Reactivity - 0

HMIS Code for Personal Protection - See Section 8

**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



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**16. OTHER INFORMATION**

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**Abbreviations**

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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