SAFETY DATA SHEET

1 IDENTIFICATION

GHS Product Identifier

VETSCAN SA Control Kit

Other means of identification

Abaxis PN: 1550-9002

Recommended use of the chemical and restriction on use

Control Material for the Abaxis VetScan SA analyzer

Supplier's details

Company Information: Abaxis, Inc.
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Union City, CA 94587, USA
Tel: +1-510-675-6500
Fax: +1-510-441-6150

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Bunsenstr. 9-11
64347 Griesheim, Germany
Tel: +49 6155 780 21 0 (EU)
Fax: +49 6155 780 21 111

Customer Support: +1-800-822-2947 (US), abaxis@abaxis.com
Tel: +49 6155 780 21 0 (EU)
abaxis@abaxis.de

Emergency phone number +1-800-822-2947 (US)
+49 6155 780 21 0 (EU)
This number is available only during business hours (9:00am to 5:00pm UTC)

2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture: liquid mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Not a hazardous substance or mixture

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS label elements

WARNING
Hazard statement(s)

- H317 May cause an allergic skin reaction
- H319 Causes serious eye irritation

Precautionary statement(s)

- P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
- P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
- P307 + P311 IF exposed: Call a POISON CENTER or doctor/ physician.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P403 + P235 Store in a well-ventilated place. Keep cool.

3 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Description</th>
<th>CAS Number</th>
<th>EINECS Number</th>
<th>%</th>
<th>Note (at 100% concentration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3-Bis(hydroxymethyl)-5,5-dimethylimidazolidine-2,4-dione</td>
<td>6440-58-0</td>
<td>0 – 0.1</td>
<td>H317 May cause an allergic skin reaction H319 Causes serious eye irritation</td>
<td></td>
</tr>
<tr>
<td>Formaldehyde in Water</td>
<td>50-00-0</td>
<td>0 – 0.1</td>
<td>Flammable liquids (Category 4), H227 Acute toxicity, Oral (Category 3), H301 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Dermal (Category 3), H311 Skin corrosion (Category 1B), H314 Serious eye damage (Category 1), H318 Skin sensitization (Category 1), H317 Germ cell mutagenicity (Category 2), H341 Carcinogenicity (Category 1A), H350 Specific target organ toxicity - single exposure (Category 1), H370 Acute aquatic toxicity (Category 3), H402</td>
<td></td>
</tr>
<tr>
<td>Other non-hazardous ingredients</td>
<td>0-99.8</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4 FIRST-AID MEASURES
In case of eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

In case of inhalation: Move to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately if symptoms occur. If not breathing, give artificial respiration.

In case of ingestion: Do not induce vomiting. Call a physician or Poison Control Center immediately.

5  FIRE-FIGHTING MEASURES

Suitable extinguishing media

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Specific hazards arising from the chemical

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Special protective actions for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6  ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

Environmental Precautions None

Methods for Containment and Clean Up Sweep up or vacuum up spillage and collect in suitable container for disposal.

7  HANDLING AND STORAGE

Precautions for safe handling

Handling Wear personal protective equipment. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Do not ingest.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

8  EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines
<table>
<thead>
<tr>
<th>Parameters</th>
<th>6440-58-0</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde in Water</td>
<td>50-00-0</td>
<td>No data available</td>
</tr>
<tr>
<td>C</td>
<td>0.300000 ppm</td>
<td>USA. ACGIH Threshold Limit Values (TLV) Upper Respiratory Tract irritation Eye irritation Suspected human carcinogen Sensitizer</td>
</tr>
<tr>
<td>TWA</td>
<td>0.016000 ppm</td>
<td>USA. NIOSH Recommended Exposure Limits Potential Occupational Carcinogen</td>
</tr>
<tr>
<td>C</td>
<td>0.100000 ppm</td>
<td>USA. NIOSH Recommended Exposure Limits Potential Occupational Carcinogen 15 minute ceiling value</td>
</tr>
<tr>
<td>PEL</td>
<td>0.750000 ppm</td>
<td>OSHA Specifically Regulated Chemicals/Carcinogens</td>
</tr>
<tr>
<td>STEL</td>
<td>2.000000 ppm</td>
<td>OSHA Specifically Regulated Chemicals/Carcinogens</td>
</tr>
</tbody>
</table>
Appropriate engineering controls

Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimize release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

Individual protection measures

Personal protective equipment

**Eye Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Hand Protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

<table>
<thead>
<tr>
<th>Glove material</th>
<th>Breakthrough time</th>
<th>Glove thickness</th>
<th>Glove comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrile rubber</td>
<td>See manufacturers</td>
<td>-</td>
<td>Splash protection only</td>
</tr>
<tr>
<td>Natural rubber</td>
<td>recommendations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neoprene</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PVC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Inspect gloves before use. Observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitization effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Remove gloves with care avoiding skin contamination.

**Respiratory Protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly.

**Recommended Filter type:** Particulates filter conforming to EN 143. When RPE is used a face piece Fit Test should be conducted.

**Environmental exposure controls** No information available.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

**9 PHYSICAL AND CHEMICAL PROPERTIES**

**Physical and chemical properties**

Physical state: Liquid mixture
Color: Brown

Odor: Odorless

Odor threshold: N/A

Chemical Properties:

- Melting point: N/A
- Boiling point: 100 c
- PH: N/A
- Water Solubility: Soluble
- Specific Gravity (Water=1): 1.01
- Evaporation Rate: N/A

10 STABILITY AND REACTIVITY

Reactivity

This preparation is not known to be reactive violently.

Chemical Stability: This preparation is known to be chemically stable

Thermal Decomposition: Will decompose when burned

Conditions to Avoid: None

Incompatible Materials: None

Hazardous Decomposition Products: No harmful decomposition products known

Storage Conditions: None

11 TOXICOLOGICAL INFORMATION

Toxicological (health) effects

No information was found on specific symptoms. The toxicological properties of this preparation have not been fully investigated. Below table lists the chemicals contained in the control and their toxicology information:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No.</th>
<th>%</th>
<th>Toxicological Information</th>
</tr>
</thead>
</table>
| 1,3-Bis(hydroxymethyl)-5,5-dimethylimidazolidine-2,4-dione | 6440-58-0 | 0 – 0.1 | Irritant
|             |         |       | May be harmful by ingestion and inhalation. Material is irritating to mucous membranes and upper respiratory tract. |
|             |         |       | **Acute effects:** |
|             |         |       | Dermal LD50 > 2000 mg/kg bw (rabbit (New Zealand White) male/female) |
|             |         |       | Oral LD50 2890 mg/kg bw (rat (Sprague-Dawley) male/female) |
|             |         |       | **Skin Irritation:** |
|             |         |       | Species: New Zealand White rabbit |
|             |         |       | Result: not irritating to the skin |
|             |         |       | **Eye Irritation:** |
|             |         |       | Species: New Zealand White rabbit |


**12 ECOLOGICAL INFORMATION**

**Toxicity**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No.</th>
<th>%</th>
<th>Eco-toxicological Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3-Bis(hydroxymethyl)-5,5-dimethylimidazolidine-2,4-dione</td>
<td>6440-58-0</td>
<td>0 – 0.1</td>
<td>EC50 (3 hr) &gt; 100 mg/L (activated sludge) &lt;br&gt; EC50 (48 hr) 29.1 mg/L (Daphnia magna) &lt;br&gt; EC50 (72 hr) 11 mg/L (Desmodesmus subspicatus) &lt;br&gt; LC50 (96 hr) &gt; 82.3 mg/L (Brachydanio rerio (Fish, Freshwater)) &lt;br&gt; The product is Readily biodegradable.</td>
</tr>
<tr>
<td>Formaldehyde in Water</td>
<td>50-00-0</td>
<td>0 – 0.1</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**13 DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste Treatment Methods: Check regional waste requirements

Waste Treatment Options: Treatment options approved by local authorities

Sewage Disposal Options: Check with local authorities before discharge to the sewer

Other Disposal Recommendations: Dispose of according to local, state, and national regulatory requirements.

U.S. Waste Classification: Non-RCRA Waste

California Waste Codes: N/A

**14 TRANSPORT INFORMATION**

**DOT** Not regulated

**TDG** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

**15 REGULATORY INFORMATION**

Result: minimally irritating to the eye

**Repeated Oral Toxicity:**
Species: Sprague-Dawley rat; <br> Result: NOEL >200-330 mg/kg bw/day

**Repeated Dermal Toxicity:**
Species: New Zealand White rabbit; <br> Result: NOAEL >800 mg/kg bw/day

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No.</th>
<th>%</th>
<th>Carcinogenicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde in Water</td>
<td>50-00-0</td>
<td>0 – 0.1</td>
<td>IARC: 1 - Group 1: Carcinogenic to humans (Formaldehyde) &lt;br&gt; NTP: Known to be human carcinogen (Formaldehyde) &lt;br&gt; OSHA: OSHA specifically regulated carcinogen (Formaldehyde)</td>
</tr>
</tbody>
</table>

Formaldehyde in Water 50-00-0 0 – 0.1
Safety, health and environmental regulations specific for the product in question

Safety, health and environmental regulations specific for the product in question

SARA 302 Components

- Formaldehyde CAS-No. 50-00-0 Revision Date 2007-07-01

SARA 313 Components

- Formaldehyde CAS-No. 50-00-0 Revision Date 2007-07-01

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

- Formaldehyde CAS-No. 50-00-0 Revision Date 2007-07-01

Pennsylvania Right To Know Components

- Water CAS-No. 7732-18-5
- Formaldehyde CAS-No. 50-00-0 Revision Date 2007-07-01

New Jersey Right To Know Components

- Water CAS-No. 7732-18-5
- Formaldehyde CAS-No. 50-00-0 Revision Date 2007-07-01

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer. Formaldehyde CAS-No. 50-00-0 Revision Date 2007-09-28

EU Regulations: This material safety data sheet conforms to Regulation (EC) No 1272/2008, 1907/ 2006, and other requirements established by the European Union

National Regulations: Germany: Water Hazard Class I

Chemical Safety Assessment: A Chemical Safety Assessment has not been completed for this product

16 OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Abaxis shall not be held liable for any damage resulting from handling or from contact with the above product.