



SAFETY DATA SHEET

1 IDENTIFICATION**GHS Product Identifier**

VetScan HemaClean Kit, 6 Tubes (3 ml each totaling 18 ml liquid volume per package)

Other means of identification

Abaxis PN: 790-1513

Recommended use of the chemical and restriction on use

A cleaning agent for use with the Abaxis HM5 VetScan analyzer.

Product Usage Information: VetScan HemaClean is provided in capped tubes of 3 milliliters of total liquid volume. As the amount of chemical is very small, the risk is substantially reduced. We have indicated the same in the shaded sections of this document.

Supplier's details

Company Information:	Abaxis, Inc. 3240 Whipple Road Union City, CA 94587, USA Tel: +1-510-675-6500 Fax: +1-510-441-6150	ABAXIS Europe GmbH Bunsenstr. 9-11 64347 Griesheim, Germany Tel: +49 6155 780 21 0 (EU) Fax: +49 6155 780 21 111
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Customer Support:	+1-800-822-2947 (US), abaxis@abaxis.com	Tel: +49 6155 780 21 0 (EU) abaxis@abaxis.de
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Emergency phone number	+1-800-822-2947 (US)	+49 6155 780 21 0 (EU)
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This number is available only during
business hours (9:00am to 5:00pm UTC)

2 HAZARD(S) IDENTIFICATION

RISKS ASSOCIATED WITH CHEMICAL COMPOUND	ASSOCIATED RISKS AT THIS VOLUME
Classification of the substance or mixture: liquid mixture, active chlorine <10%	Classification of the substance or mixture: liquid mixture, active chlorine <10%

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

Health Hazards

- Skin Corrosion/Irritation Category 1B
- Serious Eye Damage/Irritation Category 1

Physical Hazards Decomposes on heating, and on interaction with acids; this causes toxic or corrosive gases.

Corrosive to Metals Category 1

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

GHS label elements

DANGER



H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

May be corrosive to metals
Causes severe skin burns and eye damage
Keep only in original container.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.
IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
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 or doctor/physician.
Wash contaminated clothing before reuse.
Absorb spillage to prevent material damage.
Dispose of contents/container to in accordance with all federal, provincial, and/or local regulations

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

Health Hazards

- Skin Corrosion/Irritation Category 1B
- Serious Eye Damage/Irritation Category 1

Physical Hazards May decompose on heating and on interaction with acids which could cause corrosive gases.

Corrosive to Metals Category 1

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

GHS label elements

WARNING



H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

May be corrosive to metals
Causes severe skin burns and eye damage
Wash hands thoroughly after handling.
IF ON SKIN: Rinse SKIN with water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Description	CAS Number	EINECS Number	%	Note at provided volume
Sodium Hypochlorite	7681-52-9		0 – 9.00	Skin corrosion (Category 1B), H314 Serious eye damage (Category 1), H318
Other non-hazardous ingredients			0-91.00	Not applicable

4 FIRST-AID MEASURES

RISKS ASSOCIATED WITH CHEMICAL COMPOUND	ASSOCIATED RISKS AT THIS VOLUME
Inhalation Can release corrosive chlorine gas. Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary edema can be delayed up to 48 hours after exposure. Seek immediate medical attention. Skin Contact / Absorption Immediately flush with lukewarm, gently flowing water for at least 30 minutes. Under running water, remove contaminated clothing, shoes and leather goods. Seek immediate medical attention. Completely decontaminate clothing, shoes and leather goods before reuse, or discard. Eye Contact Immediately flush eye(s) with lukewarm, gently flowing water for 30 minutes while forcibly holding the eyelids open to ensure complete irrigation of the eye tissue. If a contact lens is present, remove only if easy to do so. Seek immediate medical attention. Ingestion NEVER give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 240 to 300 mL (8 to 10 oz.) of water to dilute material in stomach. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Rinse mouth and repeat administration of water. Quickly transport victim to an emergency care facility. Additional Information Provide general supportive measures (comfort, warmth, rest). Consult a doctor and/or the nearest Poison Control Center for all exposures except minor instances of inhalation or skin contact. Most important symptoms/effects, acute and delayed	Inhalation Move to fresh air. If breathing is affected, seek medical attention. Skin Contact/Absorption Immediately flush with lukewarm, gently flowing water for at least 15 minutes. Seek medical or first aid attention. Eye Contact Immediately flush eye(s) with lukewarm, gently flowing water for 30 minutes while forcibly holding the eyelids open to ensure complete irrigation of the eye tissue. If a contact lens is present, remove only if easy to do so. Seek immediate medical attention. Ingestion Rinse mouth thoroughly with water. Do NOT induce vomiting.. Drink 240 to 300 mL (8 to 10 oz.) of water. Repeat rinse and drinking of water. Seek immediate medical attention

When ingested or inhaled, nausea and vomiting, these symptoms may be delayed. When in contact with skin or eyes; acute pain and burns or blisters will occur.	
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5 FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Sodium hypochlorite solutions do not burn. Extinguish fire using extinguishing agents suitable for the surrounding fire and not contraindicated for use with sodium hypochlorite. Cool exposed containers with water.

Unsuitable Extinguishing Media

DO NOT use dry chemical fire extinguishing agents containing ammonium compounds (such as some A:B:C agents), since an explosive compound can be formed.

Specific hazards arising from the chemical

Sodium hypochlorite decomposes when heated, giving off corrosive chlorine and hydrogen chloride. Solutions decompose when exposed to sunlight, giving off oxygen gas. However, the amount of oxygen produced is not sufficient to cause combustion. Explosive decomposition may occur under fire conditions and closed containers may rupture violently due to a rapid decomposition, if exposed to fire or excessive heat for a sufficient period of time.

Special protective actions for fire-fighters

Wear NIOSH-approved self-contained breathing apparatus and protective clothing. The decomposition products of sodium hypochlorite, such as chlorine and hydrogen chloride are extremely hazardous to health. Do not enter without wearing specialized protective equipment suitable for the situation. Firefighter's normal protective equipment. (Bunker Gear) will not provide adequate protection.

6 ACCIDENTAL RELEASE MEASURES

RISKS ASSOCIATED WITH CHEMICAL COMPOUND	ASSOCIATED RISKS AT THIS VOLUME
Personal Precautions Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Environmental Precautions Prevent material from entering sewers or confined spaces. Notify local health and wildlife officials. Notify operators of nearby water intakes. Methods for Containment and Clean Up SMALL SPILLS: Clean up spill with non-reactive absorbent and place in suitable, covered, labelled containers. Flush area with water. Contaminated absorbent material may pose the same hazards as the spilled product. Small spills of sodium hypochlorite solutions can be broken down by covering it with a reducing agent such as sodium thiosulfate, sodium meta-bisulfite, or a ferrous salt.	Personal Precautions Wear appropriate personal protective equipment. Environmental Precautions None required Methods for Containment and Clean Up Flush area with water.

With the sulfite or ferrous salt, add some dilute (2 M) sulfuric acid to speed up the reaction. Transfer the mixture into large containers of water and neutralize with soda ash (sodium carbonate).

LARGE SPILLS: Contact fire and emergency services and supplier for advice.

7 HANDLING AND STORAGE

RISKS ASSOCIATED WITH CHEMICAL COMPOUND	ASSOCIATED RISKS AT THIS VOLUME
Precautions for safe handling This material is a CORROSIVE liquid. Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. Avoid generating mists. Prevent the release of mists into the workplace air. Inspect containers for damage or leaks before handling. Label containers. Never add water to a corrosive. Always add corrosives to water. When mixing with water, stir small amounts in slowly. Use cold water to prevent excessive heat generation. Never return contaminated material to its original container. Have suitable emergency equipment for fires, spills and leaks readily available. Conditions for safe storage, including any incompatibilities Store in a cool, dry, well-ventilated area, out of direct sunlight and away from heat sources. Strong solutions (greater than 10% available chlorine) may slowly give off chlorine during storage, especially when warm (above 18°C). Vent caps may be required to prevent a build-up of pressure that could cause containers to burst. Always store in original labelled container. Keep containers tightly closed when not in use and when empty. Empty containers may contain hazardous residues. Protect label and keep it visible. Incompatibilities Primary amines, aromatic amines, ammonium salts, phenylacetonitril, ammonia, urea, phenylacetonitrile, acids, metals, reducing agents, ethyleneimine, methanol, formic acid, furfuraldehyde, ethandiol, sodium ethylenedioaminetetraacetate solution, sodium hydroxide solution.	Precautions for safe handling This material is a CORROSIVE liquid. Wash thoroughly after handling. Conditions for safe storage, including any incompatibilities Store in a cool, dry, well-ventilated area, out of direct sunlight and away from heat sources. Keep containers tightly closed when not in use and when empty. Incompatibilities Primary amines, aromatic amines, ammonium salts, phenylacetonitril, ammonia, urea, phenylacetonitrile, acids, metals, reducing agents, ethyleneimine, methanol, formic acid, furfuraldehyde, ethandiol, sodium ethylenedioaminetetraacetate solution, sodium hydroxide solution.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

RISKS ASSOCIATED WITH CHEMICAL COMPOUND	ASSOCIATED RISKS AT THIS VOLUME
CONTROL PARAMETERS Exposure Limit(s) Component Regulation Type of Listing Value Sodium hypochlorite AIHA WEEL-STEL 2mg/m ₃ (15 min) Chlorine ACGIH TLV-TWA 0.5 ppm APPROPRIATE ENGINEERING CONTROLS Ventilation Requirements Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems. Other Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity. INDIVIDUAL PROTECTION MEASURES Personal protective equipment Eyes/Face Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should never be worn; they may contribute to severe eye injury. Hand Protection Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. Skin and Body Protection Body suite, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.	CONTROL PARAMETERS Exposure Limit(s) Component Regulation Type of Listing Value N/A APPROPRIATE ENGINEERING CONTROLS Ventilation Requirements N/A Other N/A INDIVIDUAL PROTECTION MEASURES Personal protective equipment Eyes/Face Contact lenses should never be worn; they may contribute to severe eye injury. Hand Protection Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Skin and Body Protection N/A Respiratory Protection No specific guidelines are available.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical State Liquid

Color Clear, greenish-yellow solution.

Odor Strong chlorine odor
Odor Threshold Not Available

Properties

pH 11-13

Melting Point/Freezing Point -15°C (12% solution)

Initial Boiling Point and Boiling Range

Slowly decomposes above 40°C

Flash Point Not Applicable

Evaporation Rate Not available;

Flammability Non-Flammable

Upper Flammable Limit Not Applicable

Lower Flammable Limit Not Applicable

Vapor Pressure (mm Hg, 20°C) Does not form a vapor

Vapor Density (Air=1) Not Available

Relative Density Not Available

Solubility(ies) Completely soluble in water

Partition Coefficient: noctanol/water

Log POW = -3.42 (estimated)

Auto-ignition Temperature Not Applicable

Decomposition Temperature Slowly decomposes above 40°C

Viscosity Not Available

Explosive Properties Pressure buildup in containers could result in an explosion when heated or in contact with acidic fumes. Vigorous reaction with oxidizable organic materials may result in a fire.

Specific Gravity (Water=1) 1.1-1.2

% Volatiles by Volume Not Available

Formula NaOCl

Molecular Weight 74.44 g/mol

10 STABILITY AND REACTIVITY

Reactivity

Sodium hypochlorite solution gives off oxygen when heated or when exposed to sunlight. However, the amount is small and will not cause or contribute to combustion. The solutions are, therefore, not considered to be oxidizing agents.

Chemical Stability:

Sodium hypochlorite solutions decompose slowly at normal temperatures releasing low concentrations of corrosive chlorine gas.

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Thermal Decomposition: Will decompose when burned

Conditions to avoid

Heat, sunlight, acidic conditions, the presence of metals and other impurities.

Primary amines, aromatic amines, ammonium salts, phenylacetonitril, ammonia, urea, phenylacetoneitrile, acids, metals, reducing agents, ethyleneimine, methanol, formic acid, furfuraldehyde, ethandiol, sodium ethylenedioaminetetraacetate solution, sodium hydroxide solution.

Incompatible materials

Chlorine, sodium chlorate.

11 TOXICOLOGICAL INFORMATION

RISKS ASSOCIATED WITH CHEMICAL COMPOUND	ASSOCIATED RISKS AT THIS VOLUME
Toxicological (health) effects Acute Toxicity Component Oral LD₅₀ Dermal LD₅₀ Inhalation LC₅₀ Sodium Hypochlorite (20%) 44.5 g/kg (rat) > 50 g/kg (rabbit) > 26.25 g/m ³ (rat, 4hr) Chronic Toxicity – Carcinogenicity Component IARC Sodium Hypochlorite Group 3: Not classifiable as to its carcinogenicity to humans. [hypochlorite salts] Symptoms related to the physical, chemical and toxicological characteristics Skin Corrosion/Irritation Very dilute solutions have caused negligible irritation, while more concentrated solutions have caused acute corrosive injury to skin. Prolonged exposure may lead to permanent scarring of skin. Ingestion Acute exposure may lead to burning of the mouth and throat, abdominal cramps, nausea, vomiting, diarrhea, shock. May lead to convulsions, coma, and even death. Inhalation Irritant of the nose and throat, causing coughing, difficulty breathing, and pulmonary edema. Serious Eye Damage/Irritation	Toxicological (health) effects Acute Toxicity – N/A Chronic Toxicity – Carcinogenicity Component IARC Sodium Hypochlorite Group 3: Not classifiable as to its carcinogenicity to humans. [hypochlorite salts] Symptoms related to the physical, chemical and toxicological characteristics Skin Corrosion/Irritation Very dilute solutions have caused negligible irritation Ingestion N/A Inhalation N/A Serious Eye Damage/Irritation Very dilute solutions have caused no irritation. Respiratory or Skin Sensitization Negative results (0/20 guinea pigs sensitized) have been obtained for 8% sodium hypochlorite solution in a skin sensitization test.

Very dilute solutions have caused no irritation. Acute exposure of more concentrated solutions have caused corrosive injury, which did not heal within 21 days. Respiratory or Skin Sensitization Negative results (0/20 guinea pigs sensitized) have been obtained for 8% sodium hypochlorite solution in a skin sensitization test. Insufficient details are available to evaluate a report of a positive result (positive reactions in 2/10 animals) obtained using 6% sodium hypochlorite (pH 11.2) with the guinea pig ear swelling test for non-immunological contact urticaria. Delayed and immediate effects and also chronic effects from short and long term exposure Germ Cell Mutagenicity The available information does not suggest that sodium hypochlorite is mutagenic. Reproductive Toxicity There is insufficient information available to draw conclusions. STOT-Single Exposure May cause respiratory irritation. STOT-Repeated Exposure Not Available Aspiration Hazard Prolonged or repeated overexposure causes lung damage. Synergistic Materials Not Available	Delayed and immediate effects and also chronic effects from short and long term exposure Germ Cell Mutagenicity The available information does not suggest that sodium hypochlorite is mutagenic. Reproductive Toxicity There is insufficient information available to draw conclusions. STOT-Single Exposure N/A STOT-Repeated Exposure N/A Aspiration Hazard N/A Synergistic Materials N/A
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12 ECOLOGICAL INFORMATION

TOXICITY

Toxicity to Algae

EC₅₀(Red algae, 96hr): 46mg/L

Toxicity to Fish

LC₅₀(Salmo gairdneri, 48hr): 0.07mg/L

Toxicity to Daphnia and Other Aquatic Invertebrates

LC₅₀(Daphnia magna, 48hr): 0.032mg/L

PERSISTENCE AND DEGRADABILITY

Not Available

BIO-ACCUMULATIVE POTENTIAL

No evidence to support any rating.

MOBILITY IN SOIL

Not Available

OTHER ADVERSE EFFECTS

Not Available

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

RISKS ASSOCIATED WITH CHEMICAL COMPOUND	ASSOCIATED RISKS AT THIS VOLUME
DOT: GROUND. TDG: UN Number: UN 3082 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Hazard Class: 9 Packaging Group: III Description: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III, MARINE POLLUTANT ICAO: UN Number: UN 3082 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Hazard Class: 9 Packaging Group: III Description: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III IATA:	DOT: Not restricted. TDG: No restrictions for road or rail ICAO: Not restricted per Special Provision A197 – “These substances when transported in single or combination packages containing a net quantity or having a net mass of 5 L or less for liquids . . . are not subject to any other provisions of these Regulations providing the packaging meets the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.” IATA:

UN Number: UN 3082 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Hazard Class: 9 Packaging Group: III Description: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III IMDG/IMO: UN Number: UN 3082 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Hazard Class: 9 Packaging Group: III Description: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYPOCHLORITE), 9, III, MARINE POLLUTANT	Not restricted per Special Provision A197 – “These substances when transported in single or combination packages containing a net quantity or having a net mass of 5 L or less for liquids . . . are not subject to any other provisions of these Regulations providing the packaging meets the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.” IMDG/IMO: Not restricted per Special Provision A197 – “These substances when transported in single or combination packages containing a net quantity or having a net mass of 5 L or less for liquids . . . are not subject to any other provisions of these Regulations providing the packaging meets the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.”
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15 REGULATORY INFORMATION

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

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Sodium hypochlorite 7681-52-9	X	X	X	X	
Sodium chlorate 7775-09-9	X	X	X		

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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

Canada WHMIS Hazard Class E - Corrosive material



16 OTHER INFORMATION

HMIS Rating

Health Hazard: 3

Flammability: 0

Physical Hazard: 0

Personal Protection: B

NFPA Rating

Health hazard: 3

Fire Hazard: 0

Reactivity Hazard: 0

Full text of H-Statements referred to under sections 2 and 3.

- Eye Dam. Serious eye damage
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- Skin Corr. Skin corrosion

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.

Date of Preparation: July 16, 2018