

# MATERIAL SAFETY DATA SHEET

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STUART PHARM.

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### SECTION 1 NAME & HAZARD SUMMARY

Material name:  
HIBICLENS®

Hazard summary (as defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200):

Physical hazards: Combustible liquid

\*\*\* Health hazards: Inhalation (TLV), irritant (skin), may cause eye damage. Based on isopropanol- harmful (central nervous system depression and gastrointestinal disturbances).

Read the entire MSDS for a more thorough evaluation of the hazards.

### SECTION 2 INGREDIENTS

	%	OSHA PEL
Chlorhexidine gluconate (CAS 18472-51-0)	4	Not listed
Isopropyl alcohol (CAS 67-63-0)	4	400 ppm
Nonionic surfactants		Not listed
FD&C No. 40 (dye)		Not listed
Fragrance		Not listed
Water		Not listed

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications. gt = greater than, lt = less than, ca = approximately

### SECTION 3 PHYSICAL DATA

Boiling point: No data  
Vapor pressure (mmHg at 20°C): No data  
Vapor density (air = 1): No data  
Solubility in water: Soluble  
pH: 5 - 6.5  
Specific gravity: 1.06  
% Volatile by volume: 60 - 70  
Appearance and odor: Clear red liquid with perfume odor

### SECTION 4 FIRE AND EXPLOSION HAZARD DATA

Flash point (and method): 148°F, 64.4°C (Setaflash CC)  
Autoignition temp.: No data  
Flammable limits (STP): 2 - 12% (isopropyl alcohol)

Extinguishing media:

Water fog, alcohol foam, carbon dioxide, dry chemical, halogenated agents.

Special fire fighting protective equipment:

Self-contained breathing apparatus with full facepiece and protective clothing.

Unusual fire and explosion hazards:

Although considered a combustible liquid because of its flash point, this product will quickly self-extinguish and will not support combustion.

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**SECTION 5 REACTIVITY DATA**

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**Stability:**

Stable under normal conditions.

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**Incompatibility (materials to avoid):**

Strong oxidizing agents

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**Hazardous decomposition products:**

Combustion products: Carbon dioxide, carbon monoxide, nitrogen oxides, ammonia.

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**Hazardous polymerization:**

Will not occur.

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**SECTION 6 HEALTH HAZARD ASSESSMENT**

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**General:**

Limited toxicity data are available on this specific product; this health hazard assessment is based on the results of screening tests and on information from the scientific literature.

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**Ingestion:**

The acute oral LD<sub>50</sub> in rat is 19.1 ml/kg in males and 26.6 ml/kg in females. Relative to other materials, a single dose of this product is relatively harmless by ingestion.

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**Eye contact:**

\*\*\* This material is slightly irritating in rabbit eye studies; a similar degree of irritation will probably occur after human eye contact.

Misuse of Chlorhexidine-containing products has been reported to cause serious and permanent eye injury when it has been permitted to enter and remain in the eye during surgical procedures. Chlorhexidine gluconate has been reported to cause deafness when instilled in the middle ear through perforated ear drums.

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**Skin contact:**

\*\*\* This material is slightly irritating in rabbit dermal irritation studies; a similar degree of irritation will probably occur following contact with human skin. The isopropyl alcohol component has been reported to induce allergic (contact) dermatitis. Irritation, sensitization and generalized allergic reactions have been reported with chlorhexidine-containing products, especially in the genital areas.

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**Skin absorption:**

2.0 - 4.3% of C-labeled chlorhexidine was absorbed through rat skin in five days. Isopropyl alcohol is absorbed through skin when exposures are severe, prolonged or repeated. Systemically toxic concentrations of this preparation will probably not be absorbed through human skin.

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**Inhalation:**

Vapor and aerosol exposures to isopropyl alcohol can produce irritation of eyes, nose and throat. Other adverse clinical reactions after extreme isopropyl alcohol exposures can include mucous membrane irritation, dizziness, drowsiness, headache, gastrointestinal pain, nausea, vomiting, diarrhea, decreased urination, loss of reflexes, central nervous system stimulation, hypotension, respiratory depression, stupor and unconsciousness, followed by death caused by respiratory arrest.

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**Other effects of overexposure:**

The manufacture of isopropyl alcohol by the strong acid process is associated with paranasal sinus and laryngeal cancer in man. No other information or data have linked isopropyl alcohol with cancer.

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## MATERIAL SAFETY DATA SHEET (continued)

HIBICLENS

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**SECTION 6 HEALTH HAZARD ASSESSMENT (continued)**

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Other effects of overexposure (continued):

A recent publication on the teratogenic potential of isopropyl alcohol in rats reported fetal growth retardation and skeletal and visceral developmental malformations. However, these anomalies occurred only secondarily to the maternal toxicity observed when the pregnant rats were exposed to high concentrations of isopropyl alcohol. These data indicate that isopropyl alcohol is not a selective teratogenic hazard to the developing fetus.

\*\*\* Anaphylactoid reactions have been described following excessive tissue and/or mucous membrane absorption.

However, since exposure potential is a critical element in the expression of a potential health hazard, this product, if handled in accordance with good industrial hygiene practices, will not present an actual hazard in the workplace.

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**First aid procedures:**

\*\*\* **Skin:** Wash material off the skin with plenty of water. If redness, itching or a burning sensation develops, get medical attention and discontinue use.

\*\*\* **Eyes:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and treated by medical personnel immediately.

**Ingestion:** Give one or two glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person.)

\*\*\* **Inhalation:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is labored, give oxygen. Consult medical personnel.

\*\*\* **Note to Physician:** Possible mucosal damage may contraindicate the use of gastric lavage following ingestion. Keep out of eyes, ears and mouth. Hibiclens should not be used as a preoperative skin preparation of the face or head. Carefully review label prior to use.

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**SECTION 7 SPILL OR LEAK PROCEDURES**

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Steps to be taken in case material is released or spilled:

For small spills, mop up and rinse to a sewer serviced by a wastewater treatment facility. For large industrial spills, eliminate sources of ignition and ventilate spill area. Wear skin, eye and respiratory protection during cleanup. Soak up liquid with absorbent and shovel into waste container. Cover container and remove from work area. Wash residue from spill area with water and flush to a sewer serviced by a wastewater treatment facility.

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**Disposal method:**

Discarded product is not a hazardous waste under RCRA, 40 CFR 261.

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**Container disposal:**

Empty container retains product residue. Observe all hazard precautions. May contain explosive vapors. Keep away from heat, sparks and flames. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue and puncture or otherwise destroy empty container before disposal.

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**SECTION 8 SPECIAL PROTECTION INFORMATION**

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**General Comments:**

The following precautions pertain to handling industrial quantities and may not be pertinent when the product is used for its final intended function.

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**TLV® or suggested control value:**

No ACGIH TLV or OSHA PEL is assigned to this mixture. Control of exposure to below the PEL for the ingredients (see Section 2) may not be sufficient. Minimize exposure in accordance with good hygiene practice. The OSHA PEL and ACGIH TLV for isopropyl alcohol is 400 ppm 8-hour TWA, 500 ppm STEL.

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**Ventilation:**

Use local exhaust to keep exposures to a minimum.

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**Respiratory protection (specify type):**

If needed, use MSHA-NIOSH approved respirator for organic vapors.

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**Protective clothing:**

Impervious gloves and apron.

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**Eye protection:**

Chemical tight goggles; full faceshield in addition if splashing is possible.

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**Other protective equipment:**

Eyewash station and safety shower in work area.

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**SECTION 9 SPECIAL PRECAUTIONS OR OTHER COMMENTS**

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**Precautions to be taken in handling or storing:**

Follow procedures specified in the National Fire Protection Association Codes and Standards for handling combustible liquids. Prevent skin and eye contact. Observe TLV limitations. Avoid breathing vapors or aerosols. Keep out of eyes and ears. Avoid temperatures above 104°F.

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**SECTION 10 REGULATORY INFORMATION**

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**TSCA (Toxic Substances Control Act) Regulations, 40 CFR 710:**

All ingredients are on the TSCA Chemical Substance Inventory.

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**CERCLA and SARA Regulations (40 CFR 355, 370, and 372):**

This product does not contain any chemicals subject to the reporting requirements of SARA Section 313.

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The information herein is given in good faith  
but no warranty, expressed or implied, is made.

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\*\*\*This line or section contains revisions or new statements since  
the last issue date.