

# Safety Data Sheet

Material Name: Gut Solution

SDS ID: COV-021

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## Section 1 - PRODUCT AND COMPANY IDENTIFICATION

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### Material Name

Gut Solution

### Product Use

Used with sutures

### Restrictions on Use

For use under medical supervision only.

### Manufacturer Information

Covidien, LP

15 Hampshire Street

Mansfield, MA 02048

USA

Phone: +1-(508) 261-8000 (Monday - Friday 8:00 am to 5:00 pm)

Email: customerservice@medtronic.com

Emergency Telephone Number:

CHEMTREC (800) 424-9300 (for US and Canada)

1(703) 527-3887 (Outside US and Canada)

Collect calls accepted

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## Section 2 - HAZARDS IDENTIFICATION

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### Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Flammable Liquids - Category 2

Serious Eye Damage/Eye Irritation - Category 2A

Skin Sensitization - Category 1A

Reproductive Toxicity - Category 2

Specific Target Organ Toxicity - Single Exposure - Category 1 ( central nervous system, kidneys, systemic toxicity )

Specific Target Organ Toxicity - Single Exposure - Category 3

Specific Target Organ Toxicity - Repeated Exposure - Category 1 ( Hematopoietic System )

Specific Target Organ Toxicity - Repeated Exposure - Category 2 ( Cardiovascular system,liver,spleen,respiratory system )

### GHS Label Elements

#### Symbol(s)



#### Signal Word

Danger

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## **Hazard Statement(s)**

Highly flammable liquid and vapor  
Causes serious eye irritation  
May cause allergic skin reaction  
Suspected of damaging fertility or the unborn child  
Causes damage to organs  
May cause respiratory irritation. May cause drowsiness or dizziness  
Causes damage to organs through prolonged or repeated exposure  
May cause damage to organs through prolonged or repeated exposure

## **Precautionary Statement(s)**

### **Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Keep container tightly closed  
Keep away from heat/sparks/open flame/hot surfaces - No smoking  
Ground/Bond container and receiving equipment  
Use explosion-proof electrical/ventilating/lighting equipment  
Take precautionary measures against static discharge  
Use only non-sparking tools  
Use only outdoors or in a well-ventilated area  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not breathe dust/fume/gas/mist/vapours/spray  
Wash thoroughly after handling  
Contaminated work clothing must not be allowed out of the workplace  
Do not eat, drink or smoke when using this product

### **Response**

In case of fire: Use appropriate media to extinguish  
If exposed: Call a POISON CENTER or doctor/physician  
IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing  
Call a POISON CENTER or doctor if you feel unwell  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention  
IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower  
If skin irritation or rash occurs: Get medical advice/attention  
Wash contaminated clothing before reuse  
Specific treatment (see label)

### **Storage**

Store in a well-ventilated place. Keep container tightly closed  
Keep cool  
Store locked up

### **Disposal**

Dispose of contents/container in accordance with local/regional/national/international regulations

### **Other Hazards**

No additional information available.

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## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

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| CAS       | Component Name  | Percent (%) |
|-----------|-----------------|-------------|
| 67-63-0   | Isopropanol     | > 85        |
| 102-71-6  | Triethanolamine | < 2         |
| 7732-18-5 | Water           | < 15        |

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## Section 4 - FIRST AID MEASURES

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### Inhalation

Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

### Skin

Remove/Take off immediately all contaminated clothing and wash it before reuse. Rinse skin with water/shower. If skin irritation or rash occurs, seek medical advice/attention.

### Eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

### Ingestion

Do NOT induce vomiting. If swallowed, get medical attention.

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

### Most Important Symptoms/Effects

#### Acute

Causes serious eye irritation. May cause allergic skin reaction. Causes damage to central nervous system, kidneys, and systemic toxicity. May cause respiratory irritation. May cause drowsiness or dizziness.

#### Delayed

Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure: Hematopoietic System. May cause damage to organs through prolonged or repeated exposure: Cardiovascular system, liver, spleen, respiratory system.

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## Section 5 - FIRE FIGHTING MEASURES

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### Extinguishing Media

#### Suitable Extinguishing Media

Dry chemical, foam or carbon dioxide.

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## **Unsuitable Extinguishing Media**

None reported.

## **Special Hazards Arising from the Chemical**

Highly flammable liquid and vapor. Beware of reignition. Vapors are heavier than air and may travel a considerable distance to a source of ignition and flashback.

## **Hazardous Combustion Products**

Oxides of carbon, oxides of nitrogen

## **Fire Fighting Measures**

Move container from fire area if it can be done without risk. Stay upwind and keep out of low areas. Avoid inhalation of material or combustion by-products. Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

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## **Section 6 - ACCIDENTAL RELEASE MEASURES**

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### **Personal Precautions, Protective Equipment and Emergency Procedures**

Wear personal protective clothing and equipment, see Section 8.

### **Methods and Materials for Containment and Cleaning Up**

Absorb with earth, sand or other non-combustible material and transfer to container. Wear protective gloves/protective clothing/eye protection/face protection. Remove all sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry.

### **Environmental Precautions**

Avoid release to the environment.

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## **Section 7 - HANDLING AND STORAGE**

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### **Precautions for Safe Handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep away from heat/sparks/open flame/hot surfaces - No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product.

### **Conditions for Safe Storage, Including any Incompatibilities**

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Keep away from heat and ignition sources. Keep away from incompatible materials.

### **Incompatible Materials**

Acids, strong oxidizing agents, halogens, aluminum, acid anhydrides, Coatings, plastic, rubber

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### Component Exposure Limits

|                 |   |
|-----------------|---|
| Isopropanol     | 67-63-0   |
| ACGIH:          | 200 ppm TWA   |
|                 | 400 ppm STEL  |
| NIOSH:          | 400 ppm TWA; 980 mg/m <sup>3</sup> TWA                        |
|                 | 500 ppm STEL; 1225 mg/m <sup>3</sup> STEL                     |
|                 | 2000 ppm IDLH (10% LEL)                                       |
| OSHA (US):      | 400 ppm TWA; 980 mg/m <sup>3</sup> TWA                        |
| Mexico:         | 400 ppm TWA LMPE-PPT; 980 mg/m <sup>3</sup> TWA LMPE-PPT      |
|                 | 500 ppm STEL [LMPE-CT]; 1225 mg/m <sup>3</sup> STEL [LMPE-CT] |
| Triethanolamine | 102-71-6  |
| ACGIH:          | 5 mg/m <sup>3</sup> TWA                                       |

### Biological limit value

There are no biological limit values for any of this product's components.

### Engineering Controls

Provide for sufficient ventilation. Ensure compliance with applicable exposure limits.

### Individual Protection Measures, such as Personal Protective Equipment

#### Eye/face protection

Wear safety glasses with side-shields.

#### Skin Protection

Wear appropriate work clothing.

#### Respiratory Protection

In case of inadequate ventilation wear respiratory protection.

#### Glove Recommendations

Wear appropriate chemical resistant gloves. Do not wear gloves made of polyvinyl alcohol (PVA).

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

|                       |                         |                       |               |
|-----------------------|-------------------------|-----------------------|---------------|
| <b>Appearance</b>     | Clear, colorless liquid | <b>Physical State</b> | Liquid        |
| <b>Odor</b>           | Alcohol                 | <b>Color</b>          | Colorless     |
| <b>Odor Threshold</b> | Not available           | <b>pH</b>             | Not available |

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|                              |                    |   |                                    |
|------------------------------|--------------------|---|------------------------------------|
| <b>Melting Point</b>         | Not available      | <b>Boiling Point</b>                          | 87 °C (188.6 °F)                   |
| <b>Freezing point</b>        | Not available      | <b>Evaporation Rate</b>                       | 2 (reference as n-butyl acetate=1) |
| <b>Boiling Point Range</b>   | Not available      | <b>Flammability (solid, gas)</b>              | Not available                      |
| <b>Autoignition</b>          | Not available      | <b>Flash Point</b>                            | 11 °C (53 °F)                      |
| <b>Lower Explosive Limit</b> | 2 %                | <b>Decomposition</b>                          | Not available                      |
| <b>Upper Explosive Limit</b> | 12 %               | <b>Vapor Pressure</b>                         | 25 (20 °C)                         |
| <b>Vapor Density (air=1)</b> | >1                 | <b>Specific Gravity (water=1)</b>             | 0.82                               |
| <b>Water Solubility</b>      | Completely soluble | <b>Partition coefficient: n-octanol/water</b> | Not available                      |
| <b>Viscosity</b>             | Not available      | <b>Solubility (Other)</b>                     | Not available                      |
| <b>Density</b>               | Not available      |   |                                    |

## Other Information

No additional information available.

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## Section 10 - STABILITY AND REACTIVITY

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### Reactivity

No reactivity hazard is expected.

### Chemical Stability

Stable under normal conditions of use.

### Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

### Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Avoid shock. Take precautionary measures against static discharge. Avoid contact with incompatible materials.

### Incompatible Materials

Acids, strong oxidizing agents, halogens, aluminum, acid anhydrides, Coatings, plastic, rubber

### Hazardous decomposition products

Oxides of carbon, oxides of nitrogen

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## Section 11 - TOXICOLOGICAL INFORMATION

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### Information on Likely Routes of Exposure

#### Inhalation

May cause respiratory irritation. May cause drowsiness or dizziness.

#### Skin Contact

May cause allergic skin reaction.

#### Eye Contact

Causes serious eye irritation.

#### Ingestion

No information on significant adverse effects.

### Acute and Chronic Toxicity

#### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Isopropanol (67-63-0)

Oral LD50 Rat 5045 mg/kg (Safety Data Sheet)

Dermal LD50 Rabbit 12800 mg/kg (Safety Data Sheet)

Inhalation LC50 Rat 1600 ppm 4 h (Safety Data Sheet)

Triethanolamine (102-71-6)

Oral LD50 Rat >5000 mg/kg (Safety Data Sheet)

Dermal LD50 Rabbit >2000 mg/kg (Safety Data Sheet)

#### Immediate Effects

Causes serious eye irritation. May cause allergic skin reaction. Causes damage to central nervous system, kidneys, and systemic toxicity. May cause respiratory irritation. May cause drowsiness or dizziness.

#### Delayed Effects

Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure: Hematopoietic System. May cause damage to organs through prolonged or repeated exposure: Cardiovascular system, liver, spleen, respiratory system.

#### Irritation/Corrosivity Data

Causes serious eye irritation. May cause respiratory irritation.

#### Respiratory Sensitization

No data available.

#### Dermal Sensitization

May cause allergic skin reaction.

#### Component Carcinogenicity

|                 |  |
|-----------------|--|
| Isopropanol     | 67-63-0  |
| ACGIH:          | A4 - Not Classifiable as a Human Carcinogen  |
| IARC:           | Monograph 71 [1999]; Supplement 7 [1987]; Monograph 15 [1977] (Group 3 (not classifiable)) |
| Triethanolamine | 102-71-6   |

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|       |  |
|-------|--|
| IARC: | Monograph 77 [2000] (Group 3 (not classifiable)) |
|-------|--|

## Germ Cell Mutagenicity

No data available.

## Reproductive Toxicity

Suspected of damaging fertility or the unborn child.

## Specific Target Organ Toxicity - Single Exposure

Central Nervous System, kidneys, systemic toxicity

## Specific Target Organ Toxicity - Repeated Exposure

Hematopoietic System, Cardiovascular system, liver, spleen, respiratory system

## Aspiration hazard

No data available.

## Medical Conditions Aggravated by Exposure

May cause allergic skin reaction. Repeated exposure may cause dermatitis.

## Additional Data

No additional information available.

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## Section 12 - ECOLOGICAL INFORMATION

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### Ecotoxicity

Avoid release to the environment.

### Component Analysis - Aquatic Toxicity

|                 |  |
|-----------------|--|
| Isopropanol     | 67-63-0  |
| Fish:           | LC50 96 h Pimephales promelas 9640 mg/L [flow-through]; LC50 96 h Pimephales promelas 11130 mg/L [static]; LC50 96 h Lepomis macrochirus >1400000 µg/L                     |
| Algae:          | EC50 96 h Desmodesmus subspicatus >1000 mg/L IUCLID; EC50 72 h Desmodesmus subspicatus >1000 mg/L IUCLID   |
| Invertebrate:   | EC50 48 h Daphnia magna 13299 mg/L IUCLID  |
| Triethanolamine | 102-71-6   |
| Fish:           | LC50 96 h Pimephales promelas 10600 - 13000 mg/L [flow-through]; LC50 96 h Pimephales promelas >1000 mg/L [static]; LC50 96 h Lepomis macrochirus 450 - 1000 mg/L [static] |
| Algae:          | EC50 72 h Desmodesmus subspicatus 216 mg/L IUCLID; EC50 96 h Desmodesmus subspicatus 169 mg/L IUCLID   |

### Persistence and Degradability

Isopropanol: Readily degraded in water.

### Bioaccumulative Potential

No information available for the product.



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**Mobility**

Isopropanol: Expected to have high mobility in soil.

**Bioconcentration**

Isopropanol: Low bioconcentration, BCF: 3.

**Other Toxicity**

No additional information available.

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## Section 13 - DISPOSAL CONSIDERATIONS

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**Disposal Methods**

Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001.

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## Section 14 - TRANSPORT INFORMATION

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**US DOT Information:**

**Shipping Name:** Flammable liquid, n.o.s. (isopropyl alcohol)

**Hazard Class:** 3

**UN/NA #:** UN1993

**Packing Group:** II

**Required Label(s):** 3

**Additional information:** No additional information available

**IATA Information:**

**Shipping Name:** Flammable liquid, n.o.s. (isopropyl alcohol)

**Hazard Class:** 3

**UN#:** UN1993

**Packing Group:** II

**Required Label(s):** 3

**Additional information:** Consult current IATA regulations prior to shipping by air

**IMDG Information:**

**Shipping Name:** Flammable liquid, n.o.s. (isopropyl alcohol)

**Hazard Class:** 3

**UN#:** UN1993

**Packing Group:** II

**Required Label(s):** 3

**Additional information:** No additional information available

**TDG Information:**

**Shipping Name:** Flammable liquid, n.o.s. (isopropyl alcohol)

**Hazard Class:** 3

**UN#:** UN1993

**Packing Group:** II

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Required Label(s): 3

Additional information: No additional information available

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## Section 15 - REGULATORY INFORMATION

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### U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b).

|             |  |
|-------------|--|
| Isopropanol | 67-63-0  |
| SARA 313:   | 1 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification) |

### Not listed under California Proposition 65

### Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

|                 |          |
|-----------------|----------|
| Isopropanol     | 67-63-0  |
|                 | 1 %      |
| Triethanolamine | 102-71-6 |
|                 | 1 %      |

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## Section 16 - OTHER INFORMATION

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### Summary of Changes

New SDS: May 6, 2015

### Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States; WHMIS - Workplace Hazardous Materials Information System

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## **Other Information**

### **Disclaimer:**

The information and recommendations in this safety data sheet are based on sources believed to be accurate as of the date of issue. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. Covidien LP makes NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED and usage of this safety data sheet shall not establish a legal, contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose. Covidien LP assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Covidien LP assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Users should ensure that any use or disposal of the material is in accordance with applicable national, country, federal, state, and local laws, directives, orders and regulations.