

PURELL® Advanced Instant Hand Sanitizer

Version 1.1 Revision Date: 02/10/2015 MSDS Number: 36762-00002 Date of last issue: 12/12/2014
Date of first issue: 12/12/2014

SECTION 1. IDENTIFICATION

Product name : PURELL® Advanced Instant Hand Sanitizer

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.

Address : One GOJO Plaza, Suite 500
Akron OH 44311

Telephone : 1 (330) 255-6000

Emergency telephone : 1-800-424-9300 CHEMTREC

Recommended use of the chemical and restrictions on use

Recommended use : Hand Sanitizer

Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Flammable liquids : Category 3

Eye irritation : Category 2A

GHS Label element

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.
H319 Causes serious eye irritation.


PURELL® Advanced Instant Hand Sanitizer

Version 1.1 Revision Date: 02/10/2015 MSDS Number: 36762-00002 Date of last issue: 12/12/2014
 Date of first issue: 12/12/2014

Precautionary Statements : **Prevention:**
 P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P233 Keep container tightly closed.
 P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P264 Wash skin thoroughly after handling.
 P280 Wear protective gloves/ eye protection/ face protection.
Response:
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
Storage:
 P403 + P235 Store in a well-ventilated place. Keep cool.
Disposal:
 P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Vapors may form explosive mixture with air.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

| Chemical Name | CAS-No. | Concentration (%) |
|---------------|---------|-------------------|
| Ethanol | 64-17-5 | >= 50 - < 70 |
| Propan-2-ol | 67-63-0 | >= 1 - < 5 |

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
 When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
 Get medical attention if symptoms occur.

In case of skin contact : Wash with water and soap as a precaution.
 Get medical attention if symptoms occur.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
 If easy to do, remove contact lens, if worn.


PURELL® Advanced Instant Hand Sanitizer

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 12/12/2014 |
| 1.1 | 02/10/2015 | 36762-00002 | Date of first issue: 12/12/2014 |

| | |
|---|---|
| | Get medical attention. |
| If swallowed | : If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water. |
| Most important symptoms and effects, both acute and delayed | : Causes serious eye irritation. |
| Protection of first-aiders | : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists. |
| Notes to physician | : Treat symptomatically and supportively. |

SECTION 5. FIRE-FIGHTING MEASURES

| | |
|--|---|
| Suitable extinguishing media | : Water spray Alcohol-resistant foam Dry chemical Carbon dioxide (CO ₂) |
| Unsuitable extinguishing media | : High volume water jet |
| Specific hazards during fire fighting | : Do not use a solid water stream as it may scatter and spread fire. Flash back possible over considerable distance. Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health. |
| Hazardous combustion products | : Carbon oxides |
| Specific extinguishing methods | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area. |
| Special protective equipment for fire-fighters | : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Remove all sources of ignition. Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations. |
| Environmental precautions | : Discharge into the environment must be avoided. |



PURELL® Advanced Instant Hand Sanitizer

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 12/12/2014 |
| 1.1 | 02/10/2015 | 36762-00002 | Date of first issue: 12/12/2014 |

Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Non-sparking tools should be used.
Soak up with inert absorbent material.
Suppress (knock down) gases/vapors/mists with a water spray jet.
For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : Use with local exhaust ventilation.
Use only in an area equipped with explosion proof exhaust ventilation.

Advice on safe handling : Do not breathe vapors or spray mist.
Do not swallow.
Do not get in eyes.
Avoid prolonged or repeated contact with skin.
Handle in accordance with good industrial hygiene and safety practice.
Non-sparking tools should be used.
Keep container tightly closed.
Keep away from heat and sources of ignition.
Take precautionary measures against static discharges.
Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage : Keep in properly labeled containers.
Keep tightly closed.
Keep in a cool, well-ventilated place.
Store in accordance with the particular national regulations.
Keep away from heat and sources of ignition.

Materials to avoid : Do not store with the following product types:
Strong oxidizing agents

PURELL® Advanced Instant Hand Sanitizer

Version 1.1 Revision Date: 02/10/2015 MSDS Number: 36762-00002 Date of last issue: 12/12/2014
 Date of first issue: 12/12/2014

Organic peroxides
 Flammable solids
 Pyrophoric liquids
 Pyrophoric solids
 Self-heating substances and mixtures
 Substances and mixtures which in contact with water emit flammable gases
 Explosives
 Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Ingredients with workplace control parameters

| Ingredients | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|-------------|---------|-------------------------------|--|-----------|
| Ethanol | 64-17-5 | TWA | 1,000 ppm 1,900 mg/m ³ | NIOSH REL |
| | | TWA | 1,000 ppm 1,900 mg/m ³ | OSHA Z-1 |
| | | STEL | 1,000 ppm | ACGIH |
| Propan-2-ol | 67-63-0 | TWA | 200 ppm | ACGIH |
| | | STEL | 400 ppm | ACGIH |
| | | TWA | 400 ppm 980 mg/m ³ | NIOSH REL |
| | | ST | 500 ppm 1,225 mg/m ³ | NIOSH REL |
| | | TWA | 400 ppm 980 mg/m ³ | OSHA Z-1 |

Biological occupational exposure limits

| Ingredients | CAS-No. | Control parameters | Biological specimen | Sam-pling time | Permissible concentration | Basis |
|-------------|---------|--------------------|---------------------|----------------------------------|---------------------------|--------------|
| Propan-2-ol | 67-63-0 | Acetone | Urine | End of shift at end of work-week | 40 mg/l | ACGIH BEI |

Engineering measures : Minimize workplace exposure concentrations.
 Use only in an area equipped with explosion proof exhaust ventilation.
 Use with local exhaust ventilation.

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and


PURELL® Advanced Instant Hand Sanitizer

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 12/12/2014 |
| 1.1 | 02/10/2015 | 36762-00002 | Date of first issue: 12/12/2014 |

use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

- Hand protection
- Material : Impervious gloves
- Material : Flame retardant gloves
- Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.
- Eye protection : Wear the following personal protective equipment:
Safety goggles
- Skin and body protection : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Wear the following personal protective equipment:
Flame retardant antistatic protective clothing.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).
- Hygiene measures : Ensure that eye flushing systems and safety showers are located close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : gel
- Color : clear, light blue
- Odor : fruity
- Odor Threshold : No data available
- pH : 6.5 - 8.5
- Melting point/freezing point : No data available
- Initial boiling point and boiling range : 73 °C

**PURELL® Advanced Instant Hand Sanitizer**

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 12/12/2014 |
| 1.1 | 02/10/2015 | 36762-00002 | Date of first issue: 12/12/2014 |

| | | |
|--|---|---|
| Flash point | : | 25 °C |
| Evaporation rate | : | No data available |
| Flammability (solid, gas) | : | Not applicable |
| Upper explosion limit | : | No data available |
| Lower explosion limit | : | No data available |
| Vapor pressure | : | No data available |
| Relative vapor density | : | No data available |
| Density | : | 0.881 g/cm ³ |
| Solubility(ies) | | |
| Water solubility | : | soluble |
| Partition coefficient: n-octanol/water | : | Not applicable |
| Autoignition temperature | : | No data available |
| Decomposition temperature | : | The substance or mixture is not classified self-reactive. |
| Viscosity | | |
| Viscosity, kinematic | : | 1,000 - 17,000 mm ² /s (20 °C) |
| Explosive properties | : | Not explosive |
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing. |

SECTION 10. STABILITY AND REACTIVITY

| | | |
|------------------------------------|---|---|
| Reactivity | : | Not classified as a reactivity hazard. |
| Chemical stability | : | Stable under normal conditions. |
| Possibility of hazardous reactions | : | Flammable liquid and vapor. Vapors may form explosive mixture with air. Can react with strong oxidizing agents. |
| Conditions to avoid | : | Heat, flames and sparks. |
| Incompatible materials | : | Oxidizing agents |
| Hazardous decomposition products | : | No hazardous decomposition products are known. |


PURELL® Advanced Instant Hand Sanitizer

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: |
| 1.1 | 02/10/2015 | 36762-00002 | 12/12/2014 |
| | | | Date of first issue: 12/12/2014 |

SECTION 11. TOXICOLOGICAL INFORMATION
Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Ingredients:
Ethanol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 124.7 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Propan-2-ol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): 72.6 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: No skin irritation

Ingredients:
Ethanol:

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

Propan-2-ol:

Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Ingredients:

**PURELL® Advanced Instant Hand Sanitizer**

Version Revision Date: MSDS Number: Date of last issue: 12/12/2014
1.1 02/10/2015 36762-00002 Date of first issue: 12/12/2014

Ethanol:

Species: Rabbit
Result: Irritation to eyes, reversing within 21 days
Method: OECD Test Guideline 405

Propan-2-ol:

Species: Rabbit
Result: Irritation to eyes, reversing within 21 days

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.
Respiratory sensitization: Not classified based on available information.

Product:

Assessment: Does not cause skin sensitization.

Ingredients:**Ethanol:**

Test Type: Local lymph node assay (LLNA)
Routes of exposure: Skin contact
Species: Mouse
Result: negative

Propan-2-ol:

Test Type: Buehler Test
Routes of exposure: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

Germ cell mutagenicity

Not classified based on available information.

Ingredients:**Ethanol:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Result: negative

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Species: Mouse
Application Route: Ingestion
Result: negative

Propan-2-ol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo
cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative

**PURELL® Advanced Instant Hand Sanitizer**

Version 1.1 Revision Date: 02/10/2015 MSDS Number: 36762-00002 Date of last issue: 12/12/2014
Date of first issue: 12/12/2014

Carcinogenicity

Not classified based on available information.

Ingredients:**Propan-2-ol:**

Species: Rat

Application Route: inhalation (vapor)

Exposure time: 104 weeks

Method: OECD Test Guideline 451

Result: negative

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Ingredients:**Ethanol:**

Effects on fertility

: Test Type: Two-generation reproduction toxicity study
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative

Propan-2-ol:

Effects on fertility

: Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on fetal development

: Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative

STOT-single exposure

Not classified based on available information.

Ingredients:**Propan-2-ol:**

Assessment: May cause drowsiness or dizziness.


PURELL® Advanced Instant Hand Sanitizer

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 12/12/2014 |
| 1.1 | 02/10/2015 | 36762-00002 | Date of first issue: 12/12/2014 |

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity
Ingredients:
Ethanol:

Species: Rat
 NOAEL: 2,400 mg/kg
 Application Route: Ingestion
 Exposure time: 2 y

Propan-2-ol:

Species: Rat
 NOAEL: 5000 ppm
 Application Route: inhalation (vapor)
 Exposure time: 104 w
 Method: OECD Test Guideline 413

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION
Ecotoxicity
Ingredients:
Ethanol:

| | | |
|--|---|---|
| Toxicity to fish | : | LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 48 h |
| Toxicity to algae | : | EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 9.6 mg/l Exposure time: 9 d |
| Toxicity to bacteria | : | EC50 (Photobacterium phosphoreum): 32.1 mg/l Exposure time: 0.25 h |

Propan-2-ol:

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Pimephales promelas (fathead minnow)): 10,000 mg/l Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 24 h |
| Toxicity to algae | : | ErC50 (Scenedesmus quadricauda (Green algae)): > 1,800 mg/l |

**PURELL® Advanced Instant Hand Sanitizer**

Version 1.1 Revision Date: 02/10/2015 MSDS Number: 36762-00002 Date of last issue: 12/12/2014
Date of first issue: 12/12/2014

Exposure time: 8 d

Toxicity to bacteria : EC50 (*Pseudomonas putida*): > 1,050 mg/l
Exposure time: 16 h

Persistence and degradability**Ingredients:****Ethanol:**

Biodegradability : Result: Readily biodegradable.
Biodegradation: 84 %
Exposure time: 20 d

Propan-2-ol:

Biodegradability : Result: rapidly degradable

Bioaccumulative potential**Ingredients:****Ethanol:**

Partition coefficient: n-octanol/water : log Pow: -0.35

Propan-2-ol:

Partition coefficient: n-octanol/water : log Pow: 0.05

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : Dispose of in accordance with local regulations.

Contaminated packaging : Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION**International Regulation****UNRTDG**

UN number : UN 1987
Proper shipping name : ALCOHOLS, N.O.S.


PURELL® Advanced Instant Hand Sanitizer

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 12/12/2014 |
| 1.1 | 02/10/2015 | 36762-00002 | Date of first issue: 12/12/2014 |

(Ethanol, Propan-2-ol)

Class : 3
 Packing group : III
 Labels : 3

IATA-DGR

UN/ID No. : UN 1987
 Proper shipping name : Alcohols, n.o.s.
 (Ethanol, Propan-2-ol)

Class : 3
 Packing group : III
 Labels : Flammable Liquids
 Packing instruction (cargo aircraft) : 366
 Packing instruction (passenger aircraft) : 355

IMDG-Code

UN number : UN 1987
 Proper shipping name : ALCOHOLS, N.O.S.
 (Ethanol, Propan-2-ol)

Class : 3
 Packing group : III
 Labels : 3
 EmS Code : F-E, S-D
 Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation
49 CFR

UN/ID/NA number : UN 1987
 Proper shipping name : ALCOHOLS, N.O.S.

Class : 3
 Packing group : III
 Labels : FLAMMABLE LIQUID
 ERG Code : 127
 Marine pollutant : no

SECTION 15. REGULATORY INFORMATION
EPCRA - Emergency Planning and Community Right-to-Know
CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard


PURELL® Advanced Instant Hand Sanitizer

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | MSDS Number: | Date of last issue: 12/12/2014 |
| 1.1 | 02/10/2015 | 36762-00002 | Date of first issue: 12/12/2014 |

Acute Health Hazard

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

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

| | | |
|-------------|---------|----------|
| Propan-2-ol | 67-63-0 | 3.4086 % |
|-------------|---------|----------|

US State Regulations
Pennsylvania Right To Know

| | | |
|-------------|-----------|-----------|
| Ethanol | 64-17-5 | 50 - 70 % |
| Water | 7732-18-5 | 30 - 50 % |
| Propan-2-ol | 67-63-0 | 1 - 5 % |

New Jersey Right To Know

| | | |
|-------------|-----------|-----------|
| Ethanol | 64-17-5 | 50 - 70 % |
| Water | 7732-18-5 | 30 - 50 % |
| Propan-2-ol | 67-63-0 | 1 - 5 % |

California Prop 65 This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

REACH : All ingredients (pre-)registered or exempt.

TSCA : All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

DSL : All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL).

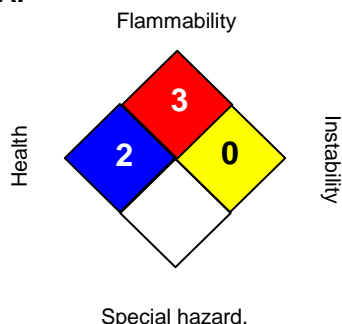
AICS : All ingredients listed or exempt.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), NECSI (Taiwan), TSCA (USA)

PURELL® Advanced Instant Hand Sanitizer

Version 1.1 Revision Date: 02/10/2015 MSDS Number: 36762-00002 Date of last issue: 12/12/2014
 Date of first issue: 12/12/2014

SECTION 16. OTHER INFORMATION
Further information
NFPA:

HMIS III:

| | |
|------------------------|----------|
| HEALTH | 2 |
| FLAMMABILITY | 3 |
| PHYSICAL HAZARD | 0 |

0 = not significant, 1 = Slight,
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic

Full text of other abbreviations

| | |
|-----------------|---|
| ACGIH | : USA. ACGIH Threshold Limit Values (TLV) |
| ACGIH BEI | : ACGIH - Biological Exposure Indices (BEI) |
| NIOSH REL | : USA. NIOSH Recommended Exposure Limits |
| OSHA Z-1 | : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| ACGIH / TWA | : 8-hour, time-weighted average |
| ACGIH / STEL | : Short-term exposure limit |
| NIOSH REL / TWA | : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| NIOSH REL / ST | : STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday |
| OSHA Z-1 / TWA | : 8-hour time weighted average |

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Revision Date : 02/10/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

US / Z8

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

 Product name : ChloroPrep[®] Solutions

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Antimicrobial

1.3. Details of the supplier of the safety data sheet

 CareFusion
 75 N. Fairway Drive
 Vernon Hills, IL 60061
 T 800-523-0502 - F 855-329-6985

1.4. Emergency telephone number

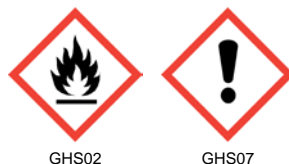
Emergency number : Chemtrec 1 800 424 9300

SECTION 2: Hazards identification
2.1. Classification of the substance or mixture
GHS-US classification

 Flam. Liq. 2 H225
 Eye Irrit. 2A H319
 STOT SE 3 H336
 STOT SE 3 H335

2.2. Label elements
GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

: Danger

Hazard statements (GHS-US) :

 : H225 - Highly flammable liquid and vapor
 H319 - Causes serious eye irritation
 H335 - May cause respiratory irritation
 H336 - May cause drowsiness or dizziness

Precautionary statements (GHS-US) :

 : P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 P233 - Keep container tightly closed
 P240 - Ground/bond container and receiving equipment
 P241 - Use explosion-proof electrical/ventilating/lighting/... equipment
 P242 - Use only non-sparking tools
 P243 - Take precautionary measures against static discharge
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P264 - Wash ... thoroughly after handling
 P271 - Use only outdoors or in a well-ventilated area
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing
 P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P312 - Call a POISON CENTER/doctor/physician if you feel unwell
 P337+P313 - If eye irritation persists: Get medical advice/attention
 P370+P378 - In case of fire: Use ... for extinction
 P403+P233 - Store in a well-ventilated place. Keep container tightly closed
 P403+P235 - Store in a well-ventilated place. Keep cool
 P405 - Store locked up
 P501 - Dispose of contents/container to ...

ChloroPrep[®] Solutions

Safety Data Sheet

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

ChloroPrep[®] Clear

| Name | Product identifier | % | GHS-US classification |
|---------------------------|---------------------|----|---------------------------|
| Isopropyl alcohol | (CAS No) 67-63-0 | 70 | Flam. Liq. 2, H225 |
| Chlorhexidine digluconate | (CAS No) 18472-51-0 | 2 | Acute Tox. 4 (Oral), H302 |

ChloroPrep[®] Teal Green

| Name | Product identifier | % | GHS-US classification |
|---------------------------|---------------------|---------|---------------------------|
| Isopropyl alcohol | (CAS No) 67-63-0 | 70 | Flam. Liq. 2, H225 |
| Chlorhexidine digluconate | (CAS No) 18472-51-0 | 2 | Acute Tox. 4 (Oral), H302 |
| C.I. Food Green 3 | (CAS No) 2353-45-9 | 0 - 0.1 | Muta. 2, H341 |

ChloroPrep[®] Hi-Lite Orange

| Name | Product identifier | % | GHS-US classification |
|---------------------------|---------------------|---------|---------------------------|
| Isopropyl alcohol | (CAS No) 67-63-0 | 70 | Flam. Liq. 2, H225 |
| Chlorhexidine digluconate | (CAS No) 18472-51-0 | 2 | Acute Tox. 4 (Oral), H302 |
| FD and C Yellow No. 6 | (CAS No) 2783-94-0 | 0 - 0.1 | Not classified |

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If symptoms of exposure develop, move to fresh air. Seek medical attention if symptoms persist.
- First-aid measures after skin contact : Wash material off the skin with copious amounts of water. If redness or a burning sensation develops, seek medical attention and discontinue use.
- First-aid measures after eye contact : Flush with copious amounts of water. After initial flushing remove any contact lenses and continue flushing for at least 15minutes. Have eyes examined and treated by medical personnel immediately.
- First-aid measures after ingestion : Give individual one to two glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person).

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : Inhalation of vapors may cause mucous membrane and respiratory irritation and central nervous system depression with symptoms of headache, dizziness and drowsiness.
- Symptoms/injuries after skin contact : May cause irritation, drying, defatting of the skin. Prolonged contact may cause dermatitis.
- Symptoms/injuries after eye contact : Contact may cause severe irritation with redness, tearing and pain with possible eye damage.
- Symptoms/injuries after ingestion : Ingestion may cause mucous membrane and gastrointestinal irritation, abdominal pain, nausea, vomiting, dizziness and drowsiness.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water fog, alcohol-resistant foam, carbon dioxide or dry chemical. Water spray can be used to cool exposed containers and structures, dilute spills and disperse flammable vapors.
- Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapor. Ampoules may explode if exposed to extreme heat or flame. Vapors are heavier than air and will travel along surfaces to remote ignition sources and flash back.
- Explosion hazard : None known.

ChloroPrep® Solutions

Safety Data Sheet

5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : No special measures required.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Stop the flow of material, if this is without risk.

Methods for cleaning up : Wear skin, eye and respiratory protection during cleanup. For small spills, wipe or mop up and rinse to sewer serviced by a wastewater treatment facility. For large spills, eliminate sources of ignition and ventilate spill area. Soak up liquid with inert absorbent and collect into a suitable waste container. Wash residue from spill area with water and flush to sewer serviced by a wastewater treatment facility if permitted.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid prolonged exposure (ingestion, inhalation, or skin contact). Avoid breathing vapors. Use in well-ventilated areas. Keep product away from heat, sparks and flames.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a cool, dry, well-ventilated area away from incompatible chemicals and all sources of ignition.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Isopropyl alcohol (67-63-0) | | |
|-----------------------------|-------------------------------------|-----------------------|
| USA ACGIH | ACGIH TWA (ppm) | 200 ppm |
| USA ACGIH | ACGIH STEL (ppm) | 400 ppm |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 980 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (ppm) | 400 ppm |

8.2. Exposure controls

Appropriate engineering controls : Use with adequate general or local exhaust ventilation to maintain exposures below the occupational exposure limits. Use explosion proof equipment where required.

Hand protection : Latex rubber for limited contact. Butyl rubber or nitrile recommended for prolonged contact.

Eye protection : Safety glasses or goggles recommended if eye contact is possible.

Skin and body protection : Wear suitable working clothes.

Respiratory protection : If the exposure limits are exceeded a NIOSH/EN approved organic vapor respirator appropriate for the form and concentration of the contaminants should be used.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear in product; when activated, clear orange, teal

ChloroPrep[®] Solutions

Safety Data Sheet

| | |
|--|--------------------------|
| Color | : Clear, orange, or teal |
| Odor | : Odorless |
| Odor threshold | : No data available |
| pH | : 7 - 7.5 |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : 67 °F |
| Self ignition temperature | : 2 - 12.7 |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Specific gravity | : 0.88 |
| Solubility | : Water: Complete |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

VOC content : 100 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

Extreme heat, sparks or flame.

10.5. Incompatible materials

Oxidizing materials

10.6. Hazardous decomposition products

Carbon dioxide, carbon monoxide, nitrogen oxides, ammonia, chlorine compounds.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| Isopropyl alcohol (67-63-0) | |
|-----------------------------|--------------------------------|
| LD50 oral rat | 4396 mg/kg |
| LD50 dermal rabbit | 12800 mg/kg |
| LC50 inhalation rat (ppm) | 16000 ppm (Exposure time: 8 h) |

| Chlorhexidine digluconate (18472-51-0) | |
|--|---------------|
| ATE (oral) | 500.000 mg/kg |

Skin corrosion/irritation : Not classified

ChloraPrep® Solutions

Safety Data Sheet

| | |
|-----------------------------------|----------------------------------|
| Serious eye damage/irritation | : Causes serious eye irritation. |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |

| | |
|------------------------------------|----------------------|
| Isopropyl alcohol (67-63-0) | |
| IARC group | 3 - Not classifiable |

| | |
|--------------------------------------|----------------------|
| C.I. Food Green 3 (2353-45-9) | |
| IARC group | 3 - Not classifiable |

| | |
|--|----------------------|
| FD and C Yellow No. 6 (2783-94-0) | |
| IARC group | 3 - Not classifiable |

| | |
|--|--|
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity (single exposure) | : May cause drowsiness or dizziness. May cause respiratory irritation. |
| Specific target organ toxicity (repeated exposure) | : Not classified |
| Aspiration hazard | : Not classified |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|------------------------------------|---|
| Isopropyl alcohol (67-63-0) | |
| LC50 fishes 1 | 9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) |
| EC50 Daphnia 1 | 13299 mg/l (Exposure time: 48 h - Species: Daphnia magna) |
| EC50 other aquatic organisms 1 | > 1000 mg/l (Exposure time: 96 h - Species: Desmodesmus subspicatus) |
| LC50 fish 2 | 11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) |
| EC50 other aquatic organisms 2 | > 1000 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus) |

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

| | |
|------------------------------------|-----------------|
| Isopropyl alcohol (67-63-0) | |
| Log Pow | 0.05 (at 25 °C) |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

In accordance with DOT

| | |
|---|---|
| Transport document description | : UN1219 Isopropanol Solution, 3, II |
| UN-No.(DOT) | : 1219 |
| DOT NA no. | : UN1219 |
| DOT Proper Shipping Name | : Isopropanol Solution |
| Department of Transportation (DOT) Hazard Classes | : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120 |

ChloroPrep[®] Solutions

Safety Data Sheet

Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : II - Medium Danger

DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx) : 4b;150

DOT Packaging Non Bulk (49 CFR 173.xxx) : 202

DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

SECTION 15: Regulatory information

15.1. US Federal regulations

| | |
|---|--|
| Isopropyl alcohol (67-63-0) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| Listed on SARA Section 313 (Specific toxic chemical listings) | |
| EPA TSCA Regulatory Flag | T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA. |
| SARA Section 313 - Emission Reporting | 1.0 % (only if manufactured by the strong acid process, no supplier notification) |
| C.I. Food Green 3 (2353-45-9) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| Chlorhexidine digluconate (18472-51-0) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| FD and C Yellow No. 6 (2783-94-0) | |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |

15.2. US State regulations

| |
|--|
| Isopropyl alcohol (67-63-0) |
| U.S. - Massachusetts - Right To Know List |
| U.S. - Minnesota - Hazardous Substance List |
| U.S. - New Jersey - Right to Know Hazardous Substance List |
| U.S. - Pennsylvania - RTK (Right to Know) List |

SECTION 16: Other information

Full text of H-phrases:

| | |
|---------------------|--|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Eye Irrit. 2A | Serious eye damage/eye irritation, Category 2A |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Muta. 2 | Germ cell mutagenicity, Category 2 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Narcosis |

ChloroPrep[®] Solutions

Safety Data Sheet

| | |
|-----------|--|
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H225 | Highly flammable liquid and vapor |
| H302 | Harmful if swallowed |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| H336 | May cause drowsiness or dizziness |
| H341 | Suspected of causing genetic defects |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



SAFETY DATA SHEET

Issuing Date January 5, 2015

Revision Date New

Revision Number 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Apicare® Alcohol Swabsticks

Other means of identification

Product Code(s) S-1105, S-1105-1S, S-3105, S-3105-5S

Recommended use of the chemical and restrictions on use

Recommended Use Topical skin antiseptic

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Name Apicare Inc.
Supplier Address 550 Research Parkway
Meriden, CT 06450

Supplier Phone Number Phone: 203-630-0500

Emergency telephone number

Emergency Phone Numbers For Medical Emergencies call: 1-800-446-1014
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION


Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|--|-------------|
| Serious eye damage/eye irritation | Category 2A |
| Specific target organ toxicity (single exposure) | Category 3 |
| Flammable liquids | Category 2 |

GHS Label elements, including precautionary statements

Emergency Overview

| | | |
|---|---|----------------------------|
| <p>Signal word</p> <p>Hazard Statements Causes serious eye irritation May cause drowsiness or dizziness Highly flammable liquid and vapor</p> <div style="text-align: center;">  </div> <p>Appearance Clear, colorless liquid absorbed into white, rayon swabs on polystyrene sticks</p> | <p>Danger</p> <p>Physical State Thin liquid absorbed into rayon swabs</p> | <p>Odor Alcohol</p> |
|---|---|----------------------------|

Precautionary Statements - Prevention

- Wash hands and face thoroughly after handling
- Wear protective gloves/eye protection
- Avoid breathing mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Keep away from heat/sparks/open flames/hot surfaces. - No smoking
- Keep container tightly closed.
- Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ ventilating/ lighting/ equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.

Precautionary Statements - Response

- 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 inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Call a poison center or doctor if you feel unwell
- If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- In case of fire: Use CO2, dry chemical, or foam for extinction.

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal in accordance with all applicable federal, state, and local regulations.

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

None of the mixture consists of ingredient(s) of unknown toxicity

Other information

Prolonged or repeated contact may dry skin and cause irritation.

Interactions with Other Chemicals

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% | Trade Secret |
|-------------------|---------|----------|--------------|
| Isopropyl alcohol | 67-63-0 | 60 - 80 | * |

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First aid measures

General Advice

Show this safety data sheet to the doctor in attendance.

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In the case of skin irritation, call a doctor.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, (trained personnel should) give oxygen. If symptoms persist, call a doctor.

Ingestion

Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.

Self-protection of the first aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Remove all sources of ignition. Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Burning sensation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical. Carbon dioxide (CO2). Alcohol resistant foam.

Unsuitable extinguishing media

CAUTION: This product has a very low flash point. Use of water spray when fighting fire may be inefficient. Do not use straight streams.

Specific Hazards Arising from the Chemical

Vapors can form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Runoff to sewer may create fire or explosion hazard.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge Yes.

Protective equipment and precautions for firefighters

Move containers from fire area if you can do it without risk.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk.

Other Information Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Environmental Precautions

Environmental Precautions Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for Containment A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Methods for cleaning up Use clean non-sparking tools to collect absorbed material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

Incompatible Products Strong oxidizing agents. Acids. Chlorinated compounds.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|------------------------------|-------------------------------|--|---|
| Isopropyl alcohol 67-63-0 | STEL: 400 ppm TWA: 200 ppm | TWA: 400 ppm TWA: 980 mg/m ³ | IDLH: 2000 ppm 10% LEL TWA: 980 mg/m ³ TWA: 400 ppm STEL: 500 ppm STEL: 1225 mg/m ³ |

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection None required for consumer use. If splashes are likely to occur:. Tight sealing safety goggles.

Skin and Body Protection Wear protective gloves and protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves. Antistatic boots.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

| | | | |
|-----------------------|--|-----------------------|--------------------------|
| Physical State | Thin liquid absorbed into pads | Odor | Alcohol |
| Appearance | Clear, thin liquid absorbed into rayon swabs on polystyrene sticks | Odor Threshold | No information available |
| Color | Colorless liquid - white swabs and sticks | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks/ Method</u> |
|---|-------------------|------------------------|
| pH | No data available | None known |
| Melting / freezing point | No data available | None known |
| Boiling point / boiling range | No data available | None known |
| Flash Point | 18° C (liquid) | None known |
| Evaporation Rate | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limit in Air | | |
| Upper flammability limit | No data available | None known |
| Lower flammability limit | No data available | None known |
| Vapor pressure | No data available | None known |
| Vapor density | No data available | None known |
| Specific Gravity | ~0.88 (liquid) | None known |
| Water Solubility | Soluble in water | None known |
| Solubility in other solvents | No data available | None known |
| Partition coefficient: n-octanol/water | No data available | None known |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | No data available | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |
| Explosive properties | No data available | |
| Oxidizing Properties | No data available | |

Other Information

| | |
|-----------------------------------|-------------------|
| Softening Point | No data available |
| VOC Content (%) | No data available |
| Particle Size | No data available |
| Particle Size Distribution | No data available |

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents. Acids. Chlorinated compounds.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

| | |
|---------------------|---|
| Inhalation | May cause irritation of respiratory tract. |
| Eye Contact | May cause redness, itching, and pain. |
| Skin Contact | Prolonged contact may cause redness and irritation. |
| Ingestion | Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |

Component Information

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|------------------------------|----------------|--------------------|----------------------|
| Isopropyl alcohol 67-63-0 | 4.4 g/kg (Rat) | 12.8 g/kg (Rabbit) | 16000 ppm (Rat, 8 h) |

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|------------------------------|-------|---------|-----|------|
| Isopropyl alcohol 67-63-0 | | Group 3 | | X |

IARC (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic Toxicity Contains a known or suspected carcinogen.

Target Organ Effects Eyes. Respiratory system. Skin. Blood. Kidney. Liver. Spleen. Systemic Toxicity.

Aspiration Hazard No information available.

Numerical measures of toxicity Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)

6.3 g/kg

ATEmix (dermal)

18 g/kg (ATE)

ATEmix (inhalation-vapor)

79 ATEmix

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

| Chemical Name | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Daphnia Magna (Water Flea) |
|------------------------------|--|--|----------------------------|----------------------------|
| Isopropyl alcohol 67-63-0 | 96h EC50: > 1000 mg/L (Desmodesmus subspicatus) 72h EC50: > 1000 mg/L (Desmodesmus subspicatus) | 96h LC50: > 1400000 µg/L (Lepomis macrochirus) 96h LC50: = 11130 mg/L (Pimephales promelas) 96h LC50: = 9640 mg/L (Pimephales promelas) | | 48h EC50: = 13299 mg/L |

Persistence and Degradability

No information available.

Bioaccumulation

| Chemical Name | Log Pow |
|------------------------------|---------|
| Isopropyl alcohol 67-63-0 | 0.05 |

Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Dispose of in accordance with all applicable federal, state, and local regulations.

Contaminated Packaging

Dispose of in accordance with all applicable federal, state, and local regulations.

| |
|----------------------------------|
| 14. TRANSPORT INFORMATION |
|----------------------------------|

DOT Limited quantity.

TDG

| | |
|-----------------------------|---|
| UN-No. | UN1993 |
| Proper Shipping Name | FLAMMABLE LIQUID, N.O.S. |
| Hazard Class | 3 |
| Packing Group | II |
| Description | UN1993, FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL), 3, II |

ICAO

| | |
|-----------------------------|---|
| UN-No. | UN1993 |
| Proper Shipping Name | FLAMMABLE LIQUID, N.O.S. |
| Hazard Class | 3 |
| Packing Group | II |
| Description | UN1993, FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL), 3, II |

IATA

| | |
|-----------------------------|---|
| UN-No. | UN1993 |
| Proper Shipping Name | FLAMMABLE LIQUID, N.O.S. |
| Hazard Class | 3 |
| Packing Group | II |
| Description | UN1993, FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL), 3, II |

IMDG/IMO

| | |
|-----------------------------|--|
| UN-No. | UN1993 |
| Proper Shipping Name | FLAMMABLE LIQUID, N.O.S. |
| Hazard Class | 3 |
| Packing Group | II |
| EmS No. | F-E, S-E |
| Description | UN1993, FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL), 3, II, (23°C C.C.) |
| Classification code | F1 |
| Special Provisions | 274, 601, 640D |
| Description | UN1993, FLAMMABLE LIQUID, N.O.S. (ISOPROPYL ALCOHOL), 3, II |
| Limited Quantity | 1 L |
| Ventilation | VE01 |

15. REGULATORY INFORMATION

Chemical Inventories

TSCA Complies
 DSL All components are listed either on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains the following chemical that is subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name | CAS No | Weight-% | SARA 313 - Threshold Values % |
|-----------------------------|---------|----------|-------------------------------|
| Isopropyl alcohol - 67-63-0 | 67-63-0 | 30 - 60 | 1.0 |

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
 Chronic Health Hazard No
 Fire Hazard Yes
 Sudden release of pressure hazard No
 Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances that are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania | Rhode Island | Illinois |
|------------------------------|------------|---------------|--------------|--------------|----------|
| Isopropyl alcohol 67-63-0 | X | X | X | X | |

International Regulations

Canada

WHMIS Hazard Class

B2 - Flammable liquid

D2B - Toxic materials



16. OTHER INFORMATION

| | | | | |
|-------------|-------------------------|-----------------------|--------------------------|--|
| NFPA | Health Hazards 2 | Flammability 3 | Instability 0 | Physical and Chemical Hazards - |
| HMIS | Health Hazards 2 | Flammability 3 | Physical Hazard 0 | Personal Protection A |

Prepared By Product Stewardship
 23 British American Blvd.
 Latham, NY 12110
 1-800-572-6501

Revision Date New

Revision Note New

Reference INT0009/D005

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. 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. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet