

# MATERIAL SAFETY DATA SHEET

## SECTION 1 IDENTIFICATION

**Manufacturers Name & Address:** New Decade Investments (Pty) Ltd t/a Durotec, Port Elizabeth

**Phone:** +27 (0) 41 5855578

**Product Name:** ISOGEL X

**Product Code:** 250 ml: 12545X 0.5 L: 12550X 1L: 12555X 5L: 12560X

**Product Type/General Information:** Disinfecting Hand rub

**Registration Number:** Not registrable in South Africa

**Chemical Name:** (active ingredients) 2-propanol 60%, Chlorhexidine 0.5%

**Hazardous Chemicals:** 2-propanol

**Routes of Entry:** Skin and Ingestion

## SECTION 2 Hazardous Ingredients/Identity Information

THE PRODUCT contains the following hazardous ingredients at concentrations greater than 1.0%

**Synonyms:** Isopropyl alcohol; sec-propyl alcohol; isopropanol; sec-propanol; dimethylcarbinol

**CAS No.:** 67-63-0

**Molecular Weight:** 60.10

**Chemical Formula:** (CH<sub>3</sub>)<sub>2</sub>CHOH

THE PRODUCT contains **NO** hazardous ingredients listed as carcinogens or potential carcinogens by the National Toxicology Program (NTP), International Agency on Cancer (IARC) or OSHA

## SECTION 3 Physical/Chemical Characteristics

**Appearance:** Clear, colourless liquid.

**Odour:** Rubbing alcohol.

**Solubility:** Miscible in water.

**Specific Gravity:**

0.79 @ 20C/4C

**pH:** 6-7

**% Volatiles by volume @ 21C (70F):** 60

**Boiling Point:** 82C (180F)

**Melting Point:** -89C (-128F)

**Vapour Density (Air=1):** 2.1

**Vapour Pressure (mm Hg):** 44 @ 25C (77F)

**Evaporation Rate (BuAc=1):** 2.83

## SECTION 4 Fire and Explosion Hazard Data

**Fire:**

Flash point: 12°C (54F) CC

Auto ignition temperature: 399°C (750F)

Flammable limits in air % by volume: lel: 2.0; uel: 12.7

Listed fire data is for Pure Isopropyl Alcohol.

**Explosion:**

Above flash point, vapour-air mixtures are explosive within flammable limits noted above. Contact with strong oxidizers may cause fire or explosion. Vapours can flow along surfaces to distant ignition source and flash back. Sensitive to static discharge.

**Fire Extinguishing Media:**

Water spray, dry chemical, alcohol foam, or carbon dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to non-flammable mixtures, protect personnel attempting to stop leak and disperse vapours.

**Special Information:**

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In the event of a fire, wear full protective clothing and approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

## **SECTION 5 Stability and Reactivity Data**

### **Stability:**

Stable under ordinary conditions of use and storage. Heat and sunlight can contribute to instability.

### **Hazardous Decomposition Products:**

Carbon dioxide and carbon monoxide may form when heated to decomposition.

### **Hazardous Polymerization:**

Will not occur.

### **Incompatibilities:**

Heat, flame, strong oxidizers, acetaldehyde, acids, chlorine, ethylene oxide, hydrogen-palladium combination, hydrogen peroxide-sulfuric acid combination, potassium tert-butoxide, hypochlorous acid, isocyanates, nitroform, phosgene, aluminum, oleum and perchloric acid.

### **Conditions to Avoid:**

Heat, flames, ignition sources and incompatibles.

## **SECTION 6 Health Hazard Data**

### **Emergency Overview**

**WARNING! FLAMMABLE LIQUID AND VAPOR. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM. MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE IRRITATION TO SKIN.**

### **Potential Health Effects**

#### **Inhalation:**

Inhalation of vapours irritates the respiratory tract. Exposure to high concentrations has a narcotic effect, producing symptoms of dizziness, drowsiness, headache, staggering, unconsciousness and possibly death.

#### **Ingestion:**

Can cause drowsiness, unconsciousness, and death. Gastrointestinal pain, cramps, nausea, vomiting, and diarrhoea may also result. The single lethal dose for a human adult = about 300 mls ( 10 ounces).

#### **Skin Contact:**

May cause irritation with redness and pain. May be absorbed through the skin with possible systemic effects.

#### **Eye Contact:**

Vapours cause eye irritation. Splashes cause severe irritation, possible corneal burns and eye damage.

#### **Chronic Exposure:**

Chronic exposure may cause skin effects.

#### **Aggravation of Pre-existing Conditions:**

Persons with pre-existing skin disorders or impaired liver, kidney, or pulmonary function may be more susceptible to the effects of this agent.

## **Emergency and First Aid Procedure:**

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Ingestion:** Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

**Skin Contact:** Consult a physician if irritation develops.

**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

## **SECTION 7 Precautions For Safe Handling and Use**

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid); observe all warnings and precautions listed for the product.

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**In case of accidental release:**

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapours, to protect personnel attempting to stop leak, and to flush spills away from exposures.

**SECTION 8 Transportation Data & Additional Information**

**Domestic (Land, D.O.T.)**

Proper Shipping Name: ISOPROPANOL based HANDRUB  
Hazard Class: 3  
UN/NA: UN1219  
Packing Group: II  
Information reported for product/size: 0.5 l – 5 l

**International (Water, I.M.O.)**

Proper Shipping Name: ISOPROPANOL  
Hazard Class: 3.2  
UN/NA: UN1219  
Packing Group: II  
Information reported for product/size: 0.5 l – 5 l

**SECTION 9 Control Measures**

**Airborne Exposure Limits:**

For Isopropyl Alcohol (2-Propanol): -OSHA Permissible Exposure Limit (PEL): 400 ppm (TWA)

**SECTION 10 Toxicological Information**

Oral rat LD50: 5045 mg/kg; skin rabbit LD50: 12.8 gm/kg; inhalation rat LC50: 16,000 ppm/8-hour; investigated as a tumorigen, mutagen, reproductive effector.

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Isopropyl Alcohol (67-63-0)	No	No	3
Water (7732-18-5)	No	No	None

**SECTION 11 Ecological Information**

**Environmental Fate:**

When released into the soil, this material is expected to quickly evaporate. When released into the soil, this material may leach into groundwater. When released into the soil, this material may biodegrade to a moderate extent. When released to water, this material is expected to quickly evaporate. When released into the water, this material is expected to have a half-life between 1 and 10 days. When released into water, this material may biodegrade to a moderate extent. This material is not expected to significantly bio accumulate. When released into the air, this material is expected to be readily degraded by reaction with photo chemically produced hydroxyl radicals. When released into the air, this

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material is expected to have a half-life between 1 and 10 days. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition.

**Environmental Toxicity:**

The LC50/96-hour values for fish are over 100 mg/l. This material is not expected to be toxic to aquatic life.

**SECTION 12 Disposal Considerations**

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in an approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

**SECTION 13 Regulatory Information**

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-----\Chemical Inventory Status - Part 1\-----
Ingredient                                     TSCA  EC   Japan  Australia
-----
Isopropyl Alcohol (67-63-0)                   Yes   Yes   Yes    Yes
Water (7732-18-5)                             Yes   Yes   Yes    Yes
    
```

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-----\Chemical Inventory Status - Part 2\-----
Ingredient                                     Korea  DSL  NDSL  Phil.
-----
Isopropyl Alcohol (67-63-0)                   Yes   Yes   No    Yes
Water (7732-18-5)                             Yes   Yes   No    Yes
    
```

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-----\Federal, State & International Regulations - Part 1\-----
Ingredient                                     -SARA 302-  -SARA 313-
RQ  TPQ  List  Chemical Catg.
-----
Isopropyl Alcohol (67-63-0)                   No   No   Yes   No
Water (7732-18-5)                             No   No   No    No
    
```

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-----\Federal, State & International Regulations - Part 2\-----
Ingredient                                     CERCLA  -RCRA-  -TSCA-
261.33  8 (d)
-----
Isopropyl Alcohol (67-63-0)                   No      No      No
Water (7732-18-5)                             No      No      No
    
```

Chemical Weapons Convention: No      TSCA 12(b): Yes      CDTA: No  
 SARA 311/312: Acute: Yes      Chronic: Yes      Fire: Yes      Pressure: No  
 Reactivity: No      (Mixture / Liquid)

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## **SECTION 14 Other Information**

**NFPA Ratings:** Health: **2** Flammability: **3** Reactivity: **0**

**Label Hazard Warning:**

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**Label Precautions:**

Keep away from heat, sparks and flame.  
Keep container closed.  
Avoid breathing vapor or mist.  
Avoid contact with eyes and clothing.

**Label First Aid:**

If swallowed, give large amounts of water to drink. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

**Product Use:**

Hands disinfectant.

**DISCLAIMER:** While Durotec believes that the data contained herein are factual, and the opinions expressed are those of qualified experts, the data are not to be taken as a warranty or representation for which Durotec assumes legal responsibility. Since the use of this information and these opinions and the conditions of use of the product are not within the control of Durotec, it is the user's obligation to assure safe use of the product.

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