MATERIAL SAFETY DATA SHEET

VALIDATION DATE: 10/06/2009

1. Identification of the substance/preparation and company

1.1 Commercial product name:

SANI-HANDS

Use of the substance / preparation:
Hand and skin disinfectant

1.2 Information on Supplier

PN Medical (Pty) Ltd
Unit 1 Iberica Park
11 Platinum Crescent
Montague Gardens, 7441

Contact information:
Tel: +27 (0) 21 552 9799
Fax: 086 599 5269
E-Mail: info@pnmedical.co.za

2. Composition / Information on ingredients

2.1 Chemical characterization:

70% isopropyl alcohol
Purified water
Glycerine
Eucalyptus

2.2 Description:

Hand and skin disinfectant

2.3 Hazardous components

<table>
<thead>
<tr>
<th>Substance</th>
<th>%</th>
<th>CAS-No</th>
<th>Hazard Symbols R-phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>70.0</td>
<td>67-63-0</td>
<td>F,Xi</td>
</tr>
</tbody>
</table>
3. **Hazards identification:**

3.1 **Hazard designation:**
- F  Highly flammable

3.2 **Specific hazard identification for man and environment:**
- R11  Highly flammable
- R36  Irritating to eyes
- R67  Vapour can cause drowsiness

4. **First aid measures:**

4.1 **General information:**
Remove contaminated clothing immediately

4.2 **Allergic symptoms with skin contact:**
Rinse immediately with warm water

4.3 **After eye contact:**
Rinse immediately with warm water for several minutes

4.4 **After ingestion:**
Same treatment as with ethanol.

4.5 **Information for the doctor:**
Same treatment as with acute ethanol intoxication.

5. **Firefighting measures:**

5.1 **Suitable extinguishing media:**
- CO₂, dry powder, water spray jet.
- Fight huge fires with water spray jet or alcohol resistant foam

5.2 **Extinguishing media that must not be used for safety reasons:**
None

5.3 **Special exposure hazards arising from the substance or preparation itself, combustion products or resulting gases:**
None

5.4 **Special protective equipment for firefighters:**
None

5.5 **Additional information:**
None

6. **Accidental release measures:**
6.1 **Personal precautions:**
Use personal protective equipment. Keep away people without protection.

6.2 **Environmental precautions:**
Do not allow to enter sewer system, basements and pits.

6.3 **Methods for cleaning up / taking up:**
Take up with suitable liquid-absorbing materials (sand, universal binder, sawdust)

7. **Handling and Storage:**

7.1 **Handling:**
Keep containers tightly closed. Keep containers well locked up and in a cool and dry place. Keep away from sources of ignition – No smoking! Take precautionary measures against electrostatic loading.

7.2 **Storage:**
7.2.1 Requirements for storage rooms and vessels: Store in a cool place. Protect from insolation.

7.2.2 Advice on storage compatibility: Do not store with food

7.2.3 Further information on storage conditions:
Classification according to VbF: B
Water Hazard Class (WGK): 1

8. **Exposure limitation and personal protective equipment:**

8.1 **Additional information on design of technical plants:**

8.2 **Ingredients with limit values on working places which have to be controlled:**
Isopropyl alcohol: MAK 500mg/m³, 200ml/m³

8.3 **Personal protective equipment:**

Respiratory Protection:
Hand Protection: Protective gloves
Eye protection: Tightly fitting protective goggles
Body Protection: Wear suitable protective clothing

General protective and hygiene measures:
Avoid eye contact
Remove contaminated clothing immediately
Keep away from food

9. **Physical and Chemical Properties:**
9.1 **Appearance:**
Form: Liquid
Colour: Clear
Odour: Alcoholic / Eucalyptus

9.2 **Safety relevant data**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH value (at 20°C; 100g/l H₂O)</td>
<td></td>
<td>(ISO 4316)</td>
</tr>
<tr>
<td>Melting point</td>
<td>-89.5°C</td>
<td></td>
</tr>
<tr>
<td>Boiling point</td>
<td>82°C</td>
<td></td>
</tr>
<tr>
<td>Flash point: Flammability</td>
<td>21°C</td>
<td></td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>425°C</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>2 Vol.%</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>12 Vol.%</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>0.878g/cm³</td>
<td>(DGF-IV2)</td>
</tr>
<tr>
<td>Water solubility: (at 20°C)</td>
<td>Completely miscible g/l</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>mPas</td>
<td>(Brookfield)</td>
</tr>
</tbody>
</table>

9.3 **Further information**

10. **Stability and reactivity:**

10.1 **Thermic decomposition / Conditions to avoid:**
Stability: Stable

10.2 **Hazardous reactions / Materials to avoid:**

10.3 **Hazardous decomposition products:**

11. **Toxicological information:**

11.1 **Acute toxicity (Values relevant for classification LD50 / LC50):**

11.2 **Sensitisation:**
Sensitisation not known

12. **Ecological information:**

12.1 **Information about elimination (persistence and degradability):**
Slightly water hazardous

12.2 **Ecotoxicity:**

12.3 **Further information:**
Water Hazard Class (WGK): 1
Do not allow undiluted product to enter sewage water
13. **Disposal considerations:**

13.1 **Disposal:**
Pass to a special treatment facility in compliance with regulations

13.2 **Product:**
Hand and skin disinfectant.

13.3 **Waste code (in accordance with EWC):**
To be classified in accordance with authorities

13.4 **Soiled packaging:**
Recommended cleansing agent: Water

14. **Transport information:**

14.1 **Land transport (ADR/RID/GGVS/GGVE):**
ADR/RID and GGVS/GGVE-class: 3
Hazard-No (Kemler-No): F1
UN-No: 1219
Danger sheet: 3
GGVS/ADR packing group: ll
Description of the goods: Isopropyl alcohol 70%
Remarks:

14.2 **Inland waterways transport**
AND/ADNR-class
Remarks:

14.3 **Marine transport**
IMDG/GGVSea-class 3.2
UN-No: 1219
EMS-No: F-E,S-D
MFAG-No: 305
marine pollutant:
GGVSea Packing group
Description of goods: Isopropyl alcohol 70%
Danger sheet: 
IMDG-Page:
Remarks:

14.4 **Air transport**
ICAO/IATA-class 3
UN/ID-No: 1219
Danger sheet:
IATA-packing instructions - passenger
IATA-max. quantity - passenger
ICAO-packing group: ll
Description of goods: Isopropyl alcohol 70%
Remarks:

14.5 **Further information**
UN packing group: ll
15. Regulatory information:

15.1 Labelling:
15.1.1 Hazard designation: F  Highly flammable
15.1.2 R-phrases: R11  Highly flammable
    R36  Irritating to eyes
    R67  Vapour can cause drowsiness
15.1.3 S-phrases: S2  Keep out of reach of children
    S7/9  Keep container tightly closed and store them with good ventilation.
    S16  Keep away from sources of ignition – No smoking!
    S25  Avoid contact to eyes
    S33  Take precautionary measures against static discharges

15.2 National regulations:
No. according to Decree for Case of Interference.
Follow VCI concept
Water Hazard Class (WGK): 1
No. according to catalogue of water hazardous substances

16. Other information:
The above given information is based on the present state of our knowledge. It does not
represent a guarantee for properties of the product(s) and establishes no contractual legal rights.
Recipients of our product(s) must take responsibility for observing existing laws and regulations.