SAFETY DATA SHEET

HAND SANITIZER
NANJING AORAND INTERNATIONAL TRADE CORPORATION.

According to GHS (Seventh Revised Edition)

Section 1  Product and Company Identification

> Product Identifier
  Product Name  HAND SANITIZER
  Synonyms  -

> Relevant Identified Uses of the Substance or Mixture and Uses Advised Against
  Relevant Identified Uses  Please consult manufacturer.
  Uses Advised Against  Please consult manufacturer.

> Details of the Supplier of the Safety Data Sheet
  Applicant Name  NANJING AORAND INTERNATIONAL TRADE CORPORATION.
  Application Address  NO.205 SHUANGGAO ROAD, QIQIAO INDUSTRIAL PARK, GAOCHUN DISTRICT NANJING CITY, P.R.CHINA 211302
  Applicant Post Code  211302
  Applicant Telephone  +86-25-57853789
  Applicant Fax  ——
  Applicant E-mail  doc@aorand.com
  Supplier Name  NANJING AORAND INTERNATIONAL TRADE CORPORATION.
  Supplier Address  NO.205 SHUANGGAO ROAD, QIQIAO INDUSTRIAL PARK, GAOCHUN DISTRICT NANJING CITY, P.R.CHINA 211302
  Supplier Post Code  211302
  Supplier Telephone  +86-25-57853789
  Supplier Fax  ——
  Supplier E-mail  S@aorand.com

> Emergency Phone Number
  Emergency Phone Number  +86-25-57850785

Section 2  Hazards Identification

Hazard class and label elements of the product according to GHS (the seventh revised edition):

> GHS Hazard Class
  Flammable Liquids  Category 2

> GHS Label Elements
Pictogram

Signal Word  

Danger

> Hazard Statements
H225  
Highly flammable liquid and vapour

> Precautionary Statements

Prevention
P210  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233  
Keep container tightly closed.
P240  
Ground and bond container and receiving equipment.
P241  
Use explosion-proof [electrical/ventilating/lighting] equipment.
P242  
Use non-sparking tools.
P243  
Take action to prevent static discharges.
P280  
Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378  
In case of fire: Use dry chemical, carbon dioxide or alcohol-resistant foam to extinguish.
P303+P361+P353  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Response
P210  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233  
Keep container tightly closed.
P240  
Ground and bond container and receiving equipment.
P241  
Use explosion-proof [electrical/ventilating/lighting] equipment.
P242  
Use non-sparking tools.
P243  
Take action to prevent static discharges.
P280  
Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378  
In case of fire: Use dry chemical, carbon dioxide or alcohol-resistant foam to extinguish.
P303+P361+P353  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P403+P235  
Store in a well-ventilated place. Keep cool.
P501  
Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3  Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration (weight percent, %)</th>
<th>CAS No.</th>
<th>EC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>75%</td>
<td>64-17-5</td>
<td>200-578-6</td>
</tr>
<tr>
<td>Acrylic acid Polymers</td>
<td>0.5%</td>
<td>9003-01-4</td>
<td>202-415-4</td>
</tr>
<tr>
<td>Trolamine</td>
<td>0.5%</td>
<td>102-71-6</td>
<td>203-049-8</td>
</tr>
<tr>
<td>Water</td>
<td>24%</td>
<td>7732-18-5</td>
<td>231-791-2</td>
</tr>
</tbody>
</table>

Section 4  First Aid Measures

> Description of First Aid Measures

General Advice  
Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.

Eye Contact  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

Skin Contact  
Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

Ingestion  
Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

Inhalation  
Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not
HAND SANITIZER

 Protecting of First-aiders

- Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

> Most Important Symptoms and Effects, both Acute and Delayed

1. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

> Indication of Any Immediate Medical Attention and Special Treatment Needed

1. Treat symptomatically.
2. Symptoms may be delayed.

Section 5  Fire Fighting Measures

> Extinguishing Media

- Suitable Extinguishing Media
  - Dry chemical, carbon dioxide or alcohol-resistant foam.
- Unsuitable Extinguishing Media
  - Do not use a solid water stream as it may scatter or spread fire.

> Specific Hazards Arising from the Substance or Mixture

1. Will form explosive mixtures with air.
2. Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/or vapour concentration.
3. Vapours may travel to source of ignition and flash back.
4. Liquid and vapour are flammable.
5. Containers may explode when heated.
6. Fire exposed containers may vent contents through pressure relief valves.
7. May expansion or decompose explosively when heated or involved in fire.

> Advice for Firefighters

1. As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2. Fight fire from a safe distance, with adequate cover.
3. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6  Accidental Release Measure

> Personal Precautions, Protective Equipment and Emergency Procedures

1. Avoid breathing vapors and contacting with skin and eye.
2. Beware of vapours accumulating to form explosive concentrations.
3. Vapours can accumulate in low areas.
5. Ensure adequate ventilation. Remove all sources of ignition.
6. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
7. Use personal protective equipment. Avoid breathing vapours, mist, gas or dust.

> Environmental Precautions
1 Prevent further leakage or spillage if safe to do so.
2 Discharge into the environment must be avoided.

Methods and Materials for Containment and Cleaning Up
1 Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
2 Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
3 Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

Section 7  Handling and Storage

Precautions for Handling
1 Avoid inhalation of vapors.
2 Use only non-sparking tools.
3 To prevent fire caused by electrostatic discharge steam, equipment on all metal parts should be grounded.
4 Use explosion proof equipment.
5 Handling is performed in a well ventilated place.
6 Wear suitable protective equipment.
7 Avoid contact with skin and eyes.
8 Keep away from heat/sparks/open flames/ hot surfaces.
9 Take precautionary measures against static discharges.

Precautions for Storage
1 Keep containers tightly closed.
2 Keep containers in a dry, cool and well-ventilated place.
3 Keep away from heat/sparks/open flames/ hot surfaces.
4 Store away from incompatible materials and foodstuff containers.

Section 8  Exposure Controls/Personal Protection

Control Parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>Country/Region</th>
<th>Limit Value - Eight Hours</th>
<th>Limit Value - Short Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>USA - OSHA</td>
<td>1000 1900</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>South Korea</td>
<td>1000 1900</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Ireland</td>
<td>- - 1000</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Germany (AGS)</td>
<td>500 960 1000 1920</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Denmark</td>
<td>1000 1900 2000 3800</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Australia</td>
<td>1000 1880</td>
<td>-</td>
</tr>
<tr>
<td>Trolamine</td>
<td>Switzerland</td>
<td>- 5 - 20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sweden</td>
<td>0.8 5 1.6 10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ireland</td>
<td>- 5 - -</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>German (DFG)</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.5</td>
<td>3.1</td>
<td>1</td>
</tr>
<tr>
<td>Australia</td>
<td>-</td>
<td>5</td>
<td>-</td>
</tr>
</tbody>
</table>

**Biological Limit Values**
No information available

**Monitoring Methods**
1. EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2. GBZ/T 160 Determination of toxic substances in workplace air (Series effective standard) and GBZ/T 300 Determination of toxic substances in workplace air (Series standard).

**Engineering Controls**
1. Ensure adequate ventilation, especially in confined areas.
2. Ensure that eyewash stations and safety showers are close to the workstation location.
3. Use explosion-proof electrical/ventilating/lighting/equipment.
4. Set up emergency exit and necessary risk-elimination area.

**Personal Protection Equipment**

**Eye Protection**
- Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US)).

**Hand Protection**
- Wear protective gloves (such as butyl rubber), passing the tests according to EN 374(EU), US F739 or AS/NZS 2161.1 standard.
- If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.

**Respiratory protection**
- If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.

**Skin and Body Protection**
- Wear fire/flame resistant/retardant clothing and antistatic boots.

**Section 9  Physical and Chemical Properties**

**Appearance**: Colourless transparent liquid
**Odor Threshold**: No information available
**Melting Point/Freezing Point (°C)**: No information available
**Flash Point (°C)(Closed Cup)**: 21
**Flammability**: Not applicable
**Vapor Pressure (KPa)**: No information available
**Relative Density (Water=1)**: No information available
**n-Octanol/Water Partition Coefficient**: No information available
**Decomposition Temperature (°C)**: No information available
**Particle characteristics**: Not applicable

**Odor**: No information available
**pH**: No information available
**Initial Boiling Point and Boiling Range (°C)**: No information available
**Evaporation Rate**: No information available
**Upper/lower explosive limits(%(v/v))**: Upper limit: No information available; Lower limit: No information available
**Relative Vapour Density(Air=1)**: No information available
**Solubility**: No information available
**Auto-Ignition Temperature(°C)**: No information available
**Kinematic Viscosity (mm²/s)**: No information available

**Section 10  Stability and Reactivity**

**Reactivity**
- Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical Stability
Stable under proper operation and storage conditions.

Possibility of Hazardous Reactions
In contact with oxidants causes severe reactions, and may cause a fire or explosion. In contact with active metals (alkali metals, Na, Ca etc.) causes a reaction and release hydrogen.

Conditions to Avoid
Incompatible materials, heat, flame and spark.

Incompatible Materials
Oxidants, alkali metals, alkaline earth metals and aluminum. Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.

Hazardous Decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11  Toxicological Information

> Acute Toxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>LD\textsubscript{50}(Oral)</th>
<th>LD\textsubscript{50}(Dermal)</th>
<th>LC\textsubscript{50}(Inhalation, 4h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylic acid Polymers</td>
<td>9003-01-4</td>
<td>2500mg/kg(Rat)</td>
<td>No information available</td>
<td>No information available</td>
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<tr>
<td>Trolamine</td>
<td>102-71-6</td>
<td>5846mg/kg(Mouse)</td>
<td>No information available</td>
<td>No information available</td>
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<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>7060mg/kg(Rat)</td>
<td>No information available</td>
<td>39mg/L(Mouse)</td>
</tr>
</tbody>
</table>

> Skin Corrosion/Irritation
No information available

> Serious Eye Damage/Irritation
No information available

> Skin Sensitization
No information available

> Respiratory Sensitization
No information available

> Germ Cell Mutagenicity
No information available

> Carcinogenicity

<table>
<thead>
<tr>
<th>ID</th>
<th>CAS No.</th>
<th>Component</th>
<th>IARC</th>
<th>NTP</th>
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<tr>
<td>1</td>
<td>64-17-5</td>
<td>Ethanol</td>
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<tr>
<td>2</td>
<td>9003-01-4</td>
<td>Acrylic acid Polymers</td>
<td>Category 3</td>
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</tr>
<tr>
<td>3</td>
<td>102-71-6</td>
<td>Trolamine</td>
<td>Category 3</td>
<td>Not Listed</td>
</tr>
<tr>
<td>4</td>
<td>7732-18-5</td>
<td>Water</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>
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> Reproductive Toxicity
No information available

> Reproductive Toxicity (Additional)
No information available

> STOT-Single Exposure
No information available

> STOT-Repeated Exposure
No information available

> Aspiration Hazard
No information available

**Section 12  Ecological Information**

> Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Fish</th>
<th>Crustaceans</th>
<th>Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trolamine</td>
<td>102-71-6</td>
<td>LC&lt;sub&gt;50&lt;/sub&gt;: 11800mg/L (96h)(Fish)</td>
<td>EC&lt;sub&gt;50&lt;/sub&gt;: 610mg/L (48h)</td>
<td>No information available</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>LC&lt;sub&gt;50&lt;/sub&gt;: 11000mg/L (96h)(Fish)</td>
<td>EC&lt;sub&gt;50&lt;/sub&gt;: 9950mg/L (48h)</td>
<td>No information available</td>
</tr>
</tbody>
</table>

> Chronic Aquatic Toxicity
No information available

> Others

Persistence and Degradability
Bioaccumulative Potential
No information available
No information available

Mobility in Soil
No information available

Ethanol does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.
Acrylic acid Polymers does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.
Trolamine does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.
Water does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

**Section 13  Disposal Considerations**

Waste Chemicals
Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.

Contaminated Packaging
Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal Recommendations
Refer to section 13.1 and 13.2.

Section 14  Transport Information

Transporting Label

Marine pollutant  None

UN Number  1170
UN Proper Shipping Name  ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Transport Hazard Class  3
Transport Subsidiary Hazard Class  NONE
Packing Group  II

Section 15  Regulatory Information

> International Chemical Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>EINECS</th>
<th>TSCA</th>
<th>DSL</th>
<th>IECSC</th>
<th>NZIoC</th>
<th>PICCS</th>
<th>KECI</th>
<th>AICS</th>
<th>ENCS</th>
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<tbody>
<tr>
<td>Ethanol</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Acrylic acid Polymers</td>
<td>×</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>×</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Trolamine</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Water</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>×</td>
</tr>
</tbody>
</table>

【EINECS】European Inventory of Existing Commercial Chemical Substances.
【TSCA】United States Toxic Substances Control Act Inventory.
【DSL】Canadian Domestic Substances List.
【IECSC】China Inventory of Existing Chemical Substances.
【NZIoC】New Zealand Inventory of Chemicals.
【PICCS】Philippines Inventory of Chemicals and Chemical Substances.
【KECI】Existing and Evaluated Chemical Substances.
【AICS】Australia Inventory of Chemical Substances.
【ENCS】Existing And New Chemical Substances.

Note
“✓” Indicates that the substance included in the regulations
“×” That no data or included in the regulations

Section 16  Additional Information

Creation Date  2020/03/04
Revision Date  2020/03/04
Reason for Revision  -
> **Disclaimer**

This Safety Data Sheet (SDS) was prepared according to UN GHS (the 7th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user’s reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.