## Section 1. Identification

<table>
<thead>
<tr>
<th>GHS product identifier</th>
<th>: NovaHol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other means of identification</td>
<td>: Not available.</td>
</tr>
<tr>
<td>Product type</td>
<td>: Liquid.</td>
</tr>
</tbody>
</table>

**Identified uses**

Hard surface cleaner / Degreaser.

**Supplier's details**

Micronova Manufacturing Inc.  
3431 West Lomita Boulevard  
Torrance, CA 90505  
Tel : 310-784-6990  
Toll free: 888-816-4276  
Fax: 310-784-6980  
Web: www.micronova-mfg.com  
Email address of person responsible for sds: info@micronova-mfg.com

**Emergency telephone number (with hours of operation)**

CHEMTREC, U.S. : 1-800-424-9300  
International: +1-703-527-3887  
(24 hours)

## Section 2. Hazards identification

**OSHA/HCS status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture**

- FLAMMABLE LIQUIDS - Category 3
- SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
- SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

**GHS label elements**

**Hazard pictograms**

- Flammable
- Warning

**Signal word**

Warning

**Hazard statements**

- H226 - Flammable liquid and vapor.
- H319 - Causes serious eye irritation.
- H336 - May cause drowsiness and dizziness.

**Precautionary statements**

**Prevention**

- P280 - Wear protective gloves. Wear eye or face protection.
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 - Keep container tightly closed.

**Response**

- Not applicable.
Section 2. Hazards identification

Storage: Not applicable.
Disposal: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous otherwise classified (HNOC)

Physical hazards not otherwise classified (PHNOC): None known.
Health hazards not otherwise classified (HHNOC): None known.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture
Other means of identification: Not available.

CAS number/other identifiers
CAS number: Not applicable.
Product code: Not available.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>10 - 24</td>
<td>67-63-0</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
Inhalation: No special measures are required. Get medical attention if symptoms occur.
Skin contact: Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.
Ingestion: No special measures are required. If swallowed, do not induce vomiting. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: Causes serious eye irritation.
Inhalation: Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.
Skin contact: No known significant effects or critical hazards.
Ingestion: Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms
Section 4. First aid measures

**Eye contact**
- Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness

**Inhalation**
- Adverse symptoms may include the following:
  - nausea or vomiting
  - headache
  - drowsiness/fatigue
  - dizziness/vertigo
  - unconsciousness

**Skin contact**
- No known significant effects or critical hazards.

**Ingestion**
- No known significant effects or critical hazards.

**Indication of immediate medical attention and special treatment needed, if necessary**

**Notes to physician**
- Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments**
- No specific treatment.

**Protection of first-aiders**
- No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media**
- Use dry chemical, CO₂, water spray (fog) or foam.

**Unsuitable extinguishing media**
- Do not use water jet or water-based fire extinguishers.

**Specific hazards arising from the chemical**
- Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

**Hazardous thermal decomposition products**
- Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide

**Special protective actions for fire-fighters**
- Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters**
- Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**
- No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders**
- If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions**
- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods and materials for containment and cleaning up**

**Spill**
- Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

**Precautions for safe handling**

**Protective measures**
- Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene**
- Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities**
- Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
Section 8. Exposure controls/personal protection

Control parameters

United States

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
</table>
| Isopropyl alcohol     | ACGIH TLV (United States, 4/2014).  
                         STEL: 400 ppm 15 minutes.  
                         TWA: 200 ppm 8 hours.  
                         NIOSH REL (United States, 10/2013).  
                         STEL: 1225 mg/m³ 15 minutes.  
                         TWA: 500 ppm 15 minutes.  
                         TWA: 980 mg/m³ 10 hours.  
                         TWA: 400 ppm 10 hours.  
                         OSHA PEL (United States, 2/2013).  
                         TWA: 980 mg/m³ 8 hours.  
                         TWA: 400 ppm 8 hours. |

Canada

<table>
<thead>
<tr>
<th>Occupational exposure limits</th>
<th>TWA (8 hours)</th>
<th>STEL (15 mins)</th>
<th>Ceiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient</td>
<td>List name</td>
<td>ppm</td>
<td>mg/m³</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>US ACGIH 4/2014</td>
<td>200</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>AB 4/2009</td>
<td>200</td>
<td>492</td>
</tr>
<tr>
<td></td>
<td>BC 7/2013</td>
<td>200</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>ON 1/2013</td>
<td>200</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>QC 1/2014</td>
<td>400</td>
<td>983</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures: No special measures required.

Eye/face protection: No special protection is required.

Skin protection

Hand protection: No special protection is required.

Body protection: No special protection is required.

Other skin protection: No special protection is required.

Respiratory protection: No special protection is required.

Section 9. Physical and chemical properties

Appearance

Physical state: Liquid.

Color: Clear.

Odor: Alcohol-like.

Odor threshold: Not available.

pH: 7

Melting point: Not available.
Section 9. Physical and chemical properties

- **Boiling point**: Not available.
- **Flash point**: Closed cup: 25.566°C (78°F) [Pensky-Martens.]
- **Evaporation rate**: >1 (Water = 1)
- **Flammability (solid, gas)**: Not available.
- **Lower and upper explosive (flammable) limits**: Not available.
- **Vapor pressure**: Not available.
- **Vapor density**: Not available.
- **Relative density**: 0.8
- **Solubility**: Easily soluble in the following materials: cold water and hot water.
- **Partition coefficient: n-octanol/water**: Not available.
- **Auto-ignition temperature**: Not available.
- **Decomposition temperature**: Not available.
- **Viscosity**: Not available.
- **Flammability (solid, gas)**: Not available.
- **VOC (w/w)**: 23.1 % (w/w)

Section 10. Stability and reactivity

- **Reactivity**: No specific test data related to reactivity available for this product or its ingredients.
- **Chemical stability**: The product is stable.
- **Possibility of hazardous reactions**: Under normal conditions of storage and use, hazardous reactions will not occur.
- **Conditions to avoid**: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
- **Incompatible materials**: Reactive or incompatible with the following materials: oxidizing materials.
- **Hazardous decomposition products**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

**Acute toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>12800 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5000 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Irritation/Corrosion**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>500 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>10 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Sensitization**
Section 11. Toxicological information

There is no data available.

Carcinogenicity

Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>EPA</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>None.</td>
<td>3</td>
<td>-</td>
<td>A4</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Narcotic effects</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure: Not available.

Potential acute health effects

Eye contact: Causes serious eye irritation.

Inhalation: Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.

Skin contact: No known significant effects or critical hazards.

Ingestion: Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following: pain or irritation; watering; redness.

Inhalation: Adverse symptoms may include the following: nausea or vomiting; headache; drowsiness/fatigue; dizziness/vertigo; unconsciousness.

Skin contact: No known significant effects or critical hazards.

Ingestion: No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects: No known significant effects or critical hazards.

Potential delayed effects: No known significant effects or critical hazards.

Long term exposure

Potential immediate effects: No known significant effects or critical hazards.
Section 11. Toxicological information

Potential delayed effects: No known significant effects or critical hazards.
Potential chronic health effects:
  General: No known significant effects or critical hazards.
  Carcinogenicity: No known significant effects or critical hazards.
  Mutagenicity: No known significant effects or critical hazards.
  Teratogenicity: No known significant effects or critical hazards.
  Developmental effects: No known significant effects or critical hazards.
  Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>21739.1 mg/kg</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>Acute LC50 1400000 to 1950000 µg/L Marine water Acute LC50 1400000 µg/L</td>
<td>Crustaceans - Crangon crangon Fish - Gambusia affinis</td>
<td>48 hours 96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability
There is no data available.

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>0.05</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

Mobility in soil
Soil/water partition coefficient (K<sub>OC</sub>): Not available.

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly.
Section 13. Disposal considerations

Internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT</th>
<th>TDG</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number: UN1987</td>
<td>UN1987</td>
<td>UN1987</td>
<td>UN1987</td>
</tr>
<tr>
<td>UN proper shipping name: ALCOHOLS, N.O.S. (Isopropyl alcohol)</td>
<td>ALCOHOLS, N.O.S. (Isopropyl alcohol)</td>
<td>ALCOHOLS, N.O.S. (Isopropyl alcohol)</td>
<td>ALCOHOLS, N.O.S. (Isopropyl alcohol)</td>
</tr>
<tr>
<td>Transport hazard class(es): 3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Packing group: III</td>
<td>III</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>Additional information: - Limited Quantity Exemption</td>
<td>- Limited Quantity Exemption</td>
<td>- Limited Quantity Exemption</td>
<td>- Limited Quantity Exemption</td>
</tr>
</tbody>
</table>

AERG : 127

Special precautions for user: **Transport within user’s premises**: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

Section 15. Regulatory information

U.S. Federal regulations: **United States inventory** (TSCA 8b): All components are listed or exempted.

- Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs): Not listed
- Clean Air Act Section 602 Class I Substances: Not listed
- Clean Air Act Section 602 Class II Substances: Not listed
- DEA List I Chemicals (Precursor Chemicals): Not listed
- DEA List I Chemicals (Precursor Chemicals): Not listed

SARA 302/304 Composition/information on ingredients: No products were found.

SARA 304 RQ: Not applicable.
## Section 15. Regulatory information

### SARA 311/312

**Classification:**
- Fire hazard
- Immediate (acute) health hazard

### Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
</table>

### SARA 313

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>67-63-0</td>
<td>10 - 24</td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

**Massachusetts:** The following components are listed: Isopropyl alcohol

**New York:** None of the components are listed.

**New Jersey:** The following components are listed: Isopropyl alcohol

**Pennsylvania:** The following components are listed: Isopropyl alcohol

**California Prop. 65:**

No products were found.

### Canada

**Canadian lists**

- **Canadian NPRI:** The following components are listed: Isopropyl alcohol

- **CEPA Toxic substances:** None of the components are listed.

- **Canada inventory:** All components are listed or exempted.

### International lists

#### National inventory

- **Australia:** All components are listed or exempted.
- **China:** All components are listed or exempted.
- **Europe:** All components are listed or exempted.
- **Japan:** All components are listed or exempted.
- **Malaysia:** All components are listed or exempted.
- **New Zealand:** All components are listed or exempted.
- **Philippines:** All components are listed or exempted.
- **Republic of Korea:** All components are listed or exempted.
- **Taiwan:** Not determined.
# Section 16. Other information

**History**

<table>
<thead>
<tr>
<th>Date of issue mm/dd/yyyy</th>
<th>04/15/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version</td>
<td>1</td>
</tr>
<tr>
<td>Prepared by</td>
<td>KMK Regulatory Services Inc.</td>
</tr>
</tbody>
</table>

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.