SAFETY DATA SHEET

FT 100

Section 1. Identification

GHS product identifier : FT 100
Product code : 53-G 183 (500 ml), 53-G 187 (20 L), 53-G 188 (208 L)
SDS no. : L-167E
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against
Identified uses : Not available.

Manufacturer : Walter Surface Technologies Inc.
Bio-Circle – A Division of Walter Surface Technologies Inc.
5977 Trans Canada Highway
Pointe-Claire, QC H9R 1C1
Canada
info@walter.com
www.walter.com
General Information: 1-888-592-5837

Emergency telephone number (with hours of operation) : INFOTRAC® 1-800-535-5053. International call collect: 1-352-323-3500
24 hours/day, 7 days/week.

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

GHS label elements

Hazard pictograms :

Signal word : Warning
Hazard statements :
H226 - Flammable liquid and vapor.
H319 - Causes serious eye irritation.

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.
P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P233 - Keep container tightly closed.
P264 - Wash hands thoroughly after handling.
Section 2. Hazards identification

Response:
- P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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 attention.

Storage:
- P403 - Store in a well-ventilated place.
- P235 - Keep cool.

Disposal:
- P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified:
- None known.

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>: Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>: 53-G 183 (500 ml), 53-G 187 (20 L), 53-G 188 (208 L)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>5 - 10</td>
<td>67-63-0</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>1 - 5</td>
<td>111-76-2</td>
</tr>
<tr>
<td>Ammonia, anhydrous</td>
<td>0.01 - 0.1</td>
<td>7664-41-7</td>
</tr>
</tbody>
</table>

United States: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

Canada: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with the amended HPR as of April 2018.

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. Continue to rinse for at least 20 minutes. Get medical attention.

**Inhalation**
- Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately.

**Skin contact**
- Flush contaminated skin with plenty of water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion**
- Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

**Most important symptoms/effects, acute and delayed**

**Potential acute health effects**
Section 4. First aid measures

Eye contact: Causes serious eye irritation.
Inhalation: No known significant effects or critical hazards.
Skin contact: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms
Eye contact: Adverse symptoms may include the following:
  pain or irritation
  watering
  redness
Inhalation: No known significant effects or critical hazards.
Skin contact: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.

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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

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

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. 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. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. 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. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
# 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>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>ACGIH TLV (United States, 3/2017). TWA: 200 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>STEL: 400 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 10/2016). TWA: 400 ppm 10 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 980 mg/m³ 10 hours.</td>
</tr>
<tr>
<td></td>
<td>STEL: 500 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>STEL: 1225 mg/m³ 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 10/2016). TWA: 400 ppm 10 hours.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 6/2016). TWA: 980 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>ACGIH TLV (United States, 3/2017). TWA: 20 ppm 8 hours.</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 10/2016). Absorbed through skin.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 6/2016). Absorbed through skin.</td>
</tr>
<tr>
<td></td>
<td>TWA: 17 mg/m³ 8 hours.</td>
</tr>
<tr>
<td></td>
<td>STEL: 35 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>STEL: 24 mg/m³ 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours.</td>
</tr>
<tr>
<td></td>
<td>TWA: 18 mg/m³ 10 hours.</td>
</tr>
<tr>
<td></td>
<td>STEL: 35 ppm 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>STEL: 27 mg/m³ 15 minutes.</td>
</tr>
<tr>
<td></td>
<td>OSHA PEL (United States, 6/2016). TWA: 50 ppm 8 hours.</td>
</tr>
</tbody>
</table>
### Section 8. Exposure controls/personal protection

#### Canada

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
</table>
| **Isopropyl Alcohol** | CA Alberta Provincial (Canada, 4/2009).  
15 min OEL: 984 mg/m³ 15 minutes.  
8 hrs OEL: 200 ppm 8 hours.  
15 min OEL: 400 ppm 15 minutes.  
8 hrs OEL: 492 mg/m³ 8 hours.  
CA British Columbia Provincial (Canada, 7/2016).  
TWA: 200 ppm 8 hours.  
STEL: 400 ppm 15 minutes.  
CA Ontario Provincial (Canada, 7/2015).  
TWA: 200 ppm 8 hours.  
STEL: 400 ppm 15 minutes.  
CA Quebec Provincial (Canada, 1/2014).  
TWA: 400 ppm 8 hours.  
TWA: 983 mg/m³ 8 hours.  
STEV: 500 ppm 15 minutes.  
STEV: 1230 mg/m³ 15 minutes.  
CA Saskatchewan Provincial (Canada, 7/2013).  
STEL: 400 ppm 15 minutes.  
TWA: 200 ppm 8 hours.  
CA Alberta Provincial (Canada, 4/2009).  
8 hrs OEL: 97 mg/m³ 8 hours.  
8 hrs OEL: 20 ppm 8 hours.  
CA British Columbia Provincial (Canada, 7/2016).  
TWA: 20 ppm 8 hours.  
CA Ontario Provincial (Canada, 7/2015).  
TWA: 20 ppm 8 hours.  
CA Quebec Provincial (Canada, 1/2014).  
TWA: 20 ppm 8 hours.  
TWA: 97 mg/m³ 8 hours.  
CA Saskatchewan Provincial (Canada, 7/2013).  
STEL: 30 ppm 15 minutes.  
TWA: 20 ppm 8 hours.  
CA Alberta Provincial (Canada, 4/2009).  
8 hrs OEL: 17 mg/m³ 8 hours.  
8 hrs OEL: 25 ppm 8 hours.  
15 min OEL: 35 ppm 15 minutes.  
15 min OEL: 24 mg/m³ 15 minutes.  
CA British Columbia Provincial (Canada, 7/2016).  
TWA: 25 ppm 8 hours.  
STEL: 35 ppm 15 minutes.  
CA Ontario Provincial (Canada, 7/2015).  
TWA: 25 ppm 8 hours.  
STEL: 35 ppm 15 minutes.  
CA Quebec Provincial (Canada, 1/2014).  
TWA: 25 ppm 8 hours.  
TWA: 17 mg/m³ 8 hours.  
STEV: 35 ppm 15 minutes.  
STEV: 24 mg/m³ 15 minutes.  
CA Saskatchewan Provincial (Canada, 7/2013).  
STEL: 35 ppm 15 minutes.  
TWA: 25 ppm 8 hours. |
| **2-Butoxyethanol** | CA Alberta Provincial (Canada, 4/2009).  
8 hrs OEL: 97 mg/m³ 8 hours.  
8 hrs OEL: 20 ppm 8 hours.  
CA British Columbia Provincial (Canada, 7/2016).  
TWA: 20 ppm 8 hours.  
CA Ontario Provincial (Canada, 7/2015).  
TWA: 20 ppm 8 hours.  
CA Quebec Provincial (Canada, 1/2014).  
TWA: 20 ppm 8 hours.  
TWA: 97 mg/m³ 8 hours.  
CA Saskatchewan Provincial (Canada, 7/2013).  
STEL: 30 ppm 15 minutes.  
TWA: 20 ppm 8 hours.  
CA Alberta Provincial (Canada, 4/2009).  
8 hrs OEL: 97 mg/m³ 8 hours.  
8 hrs OEL: 20 ppm 8 hours.  
CA British Columbia Provincial (Canada, 7/2016).  
TWA: 20 ppm 8 hours.  
CA Ontario Provincial (Canada, 7/2015).  
TWA: 20 ppm 8 hours.  
CA Quebec Provincial (Canada, 1/2014).  
TWA: 20 ppm 8 hours.  
TWA: 97 mg/m³ 8 hours.  
CA Saskatchewan Provincial (Canada, 7/2013).  
STEL: 30 ppm 15 minutes.  
TWA: 20 ppm 8 hours.  
CA Alberta Provincial (Canada, 4/2009).  
8 hrs OEL: 17 mg/m³ 8 hours.  
8 hrs OEL: 25 ppm 8 hours.  
15 min OEL: 35 ppm 15 minutes.  
15 min OEL: 24 mg/m³ 15 minutes.  
CA British Columbia Provincial (Canada, 7/2016).  
TWA: 25 ppm 8 hours.  
STEL: 35 ppm 15 minutes.  
CA Ontario Provincial (Canada, 7/2015).  
TWA: 25 ppm 8 hours.  
STEL: 35 ppm 15 minutes.  
CA Quebec Provincial (Canada, 1/2014).  
TWA: 25 ppm 8 hours.  
TWA: 17 mg/m³ 8 hours.  
STEV: 35 ppm 15 minutes.  
STEV: 24 mg/m³ 15 minutes.  
CA Saskatchewan Provincial (Canada, 7/2013).  
STEL: 35 ppm 15 minutes.  
TWA: 25 ppm 8 hours. |
| **Ammonia, anhydrous** | CA Alberta Provincial (Canada, 4/2009).  
8 hrs OEL: 17 mg/m³ 8 hours.  
8 hrs OEL: 25 ppm 8 hours.  
15 min OEL: 35 ppm 15 minutes.  
15 min OEL: 24 mg/m³ 15 minutes.  
CA British Columbia Provincial (Canada, 7/2016).  
TWA: 25 ppm 8 hours.  
STEL: 35 ppm 15 minutes.  
CA Ontario Provincial (Canada, 7/2015).  
TWA: 25 ppm 8 hours.  
STEL: 35 ppm 15 minutes.  
CA Quebec Provincial (Canada, 1/2014).  
TWA: 25 ppm 8 hours.  
TWA: 17 mg/m³ 8 hours.  
STEV: 35 ppm 15 minutes.  
STEV: 24 mg/m³ 15 minutes.  
CA Saskatchewan Provincial (Canada, 7/2013).  
STEL: 35 ppm 15 minutes.  
TWA: 25 ppm 8 hours. |

**Appropriate engineering controls**: No personal respiratory protective equipment normally required. Avoid breathing dust/fume/gas/mist/vapors/spray. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**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**
Section 8. Exposure controls/personal protection

**Hand protection**
Use a NIOSH/MSHA approved respirator if there is a risk of exposure at levels exceeding the exposure limits. Advice should be sought from respiratory protection specialists.

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Eye/face protection**
Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**Skin protection**

**Hand protection**
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection**
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Other skin protection**
Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**
Use a NIOSH/MSHA approved respirator if there is a risk of exposure at levels exceeding the exposure limits. Advice should be sought from respiratory protection specialists.

Section 9. Physical and chemical properties

**Appearance**

**Physical state**
Liquid.

**Color**
Transparent.

**Odor**
Ammonia

**Odor threshold**
Not available.

**pH**
10.5 to 12

**Melting point**
Not available.

**Boiling point**
95°C (203°F)

**Flash point**
Closed cup: 43°C (109.4°F)

**Evaporation rate**
Not available.

**Flammability (solid, gas)**
Not available.

**Lower and upper explosive (flammable) limits**
Not available.

**Vapor pressure**
Not available.

**Vapor density**
Not available.

**Relative density**
0.98 to 0.99 g/ml @ 20°C (68°F)

**Solubility**
Soluble in the following materials: cold water and hot water.

**Partition coefficient: n-octanol/water**
Not available.

**Auto-ignition temperature**
Not available.
Section 9. Physical and chemical properties

Decomposition temperature : Not available.
Viscosity : Not available.
Flow time (ISO 2431) : Not available.
VOC content : 0.07% (CARB 310)

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 and acids.

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>
<tr>
<td>2-Butoxyethanol</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>917 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Ammonia, anhydrous</td>
<td>LC50 Inhalation Gas.</td>
<td>Rat</td>
<td>9500 ppm</td>
<td>1 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Gas.</td>
<td>Rat</td>
<td>2000 ppm</td>
<td>4 hours</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 - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours</td>
<td>100 mg</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours</td>
<td>100 mg</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
</tbody>
</table>
Section 11. Toxicological information

Reproductive toxicity
There is no data available.

Teratogenicity
There is no data available.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>Category 3</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
Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness
Inhalation : No known significant effects or critical hazards.
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.
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.
Section 11. Toxicological information

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>14180.7 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>22002.2 mg/kg</td>
</tr>
<tr>
<td>Inhalation (vapors)</td>
<td>220 mg/L</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 EC50 10100 mg/L Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 1400000 µg/L Marine water</td>
<td>Crustaceans - Crangon crangon</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 4200 mg/L Fresh water</td>
<td>Fish - Rasbora heteromorpha</td>
<td>96 hours</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>Acute LC50 &gt;1000 mg/L Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 800000 µg/L Marine water</td>
<td>Crustaceans - Crangon crangon</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 1250000 µg/L Marine water</td>
<td>Fish - Menidia beryllina</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 29.2 mg/L Marine water</td>
<td>Algae - Ulva fasciata - Zoea</td>
<td>96 hours</td>
</tr>
<tr>
<td>Ammonia, anhydrous</td>
<td>Acute LC50 2080 µg/L Fresh water</td>
<td>Crustaceans - Gammarus pulex</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 0.53 ppm Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 300 µg/L Fresh water</td>
<td>Fish - Hypophthalmichthys nobilis</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.204 mg/L Marine water</td>
<td>Fish - Dicentrarchus labrax</td>
<td>62 days</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>
<tr>
<td>2-Butoxyethanol</td>
<td>0.81</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 Classification</th>
<th>TDG Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN proper shipping name</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

AERG : Not applicable.

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. Protect from freezing. Freezing will damage product and render it unusable.

Section 15. Regulatory information

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

- Clean Water Act (CWA) 311: Ammonia, anhydrous
- 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 II Chemicals (Essential Chemicals) : Not listed

SARA 302/304 Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>EHS</th>
<th>SARA 302 TPQ (lbs)</th>
<th>SARA 304 RQ (gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia, anhydrous</td>
<td>Yes.</td>
<td>500</td>
<td>100</td>
</tr>
</tbody>
</table>
Section 15. Regulatory information

SARA 304 RQ : 91365.9 lbs / 41480.1 kg [11124.8 gal / 42111.8 L]
SARA 311/312 Classification : FLAMMABLE LIQUIDS - Category 3
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>Classification</th>
</tr>
</thead>
</table>
| Isopropyl Alcohol | FLAMMABLE LIQUIDS - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |
| 2-Butoxyethanol   | FLAMMABLE LIQUIDS - Category 4
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A |

SARA 313

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form R - Reporting requirements</td>
<td></td>
</tr>
<tr>
<td>Isopropyl Alcohol</td>
<td>67-63-0</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
</tr>
<tr>
<td>Supplier notification</td>
<td></td>
</tr>
<tr>
<td>Isopropyl Alcohol</td>
<td>67-63-0</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</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; 2-Butoxyethanol
New York : None of the components are listed.
New Jersey : The following components are listed: Isopropyl Alcohol; 2-Butoxyethanol
Pennsylvania : The following components are listed: Isopropyl Alcohol; 2-Butoxyethanol
California Prop. 65
No products were found.

Canada

Canadian lists

Canadian NPRI : The following components are listed: Isopropyl Alcohol; 2-Butoxyethanol
CEPA Toxic substances : The following components are listed: 2-Butoxyethanol
Canada inventory (DSL NDSL) : 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.
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.
Section 15. Regulatory information

Taiwan: All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABLE LIQUIDS - Category 3</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

History

- Date of issue mm/dd/yyyy: 09/30/2018
- Date of previous issue: 10/30/2016
- Version: 3
- Prepared by: KMK Regulatory Services Inc.

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.