

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : Acid-Alcohol, 3% v/v in 70% Alcohol  
Product code : LC10500

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : For laboratory and manufacturing use only.

#### 1.3. Details of the supplier of the safety data sheet

LabChem Inc  
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court  
Zelienople, PA 16063 - USA  
T 412-826-5230 - F 724-473-0647  
[info@labchem.com](mailto:info@labchem.com) - [www.labchem.com](http://www.labchem.com)

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Flam. Liq. 2 H225  
Skin Corr. 1B H314  
Eye Dam. 1 H318  
Repr. 2 H361  
STOT SE 1 H370

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS-US)



GHS02

GHS05

GHS08

Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H225 - Highly flammable liquid and vapour  
H314 - Causes severe skin burns and eye damage  
H361 - Suspected of damaging fertility or the unborn child  
H370 - Causes damage to organs (central nervous system, optic nerve)

Precautionary statements (GHS-US)

: P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking  
P233 - Keep container tightly closed  
P240 - Ground/bond container and receiving equipment  
P241 - Use explosion-proof electrical, ventilating, lighting equipment  
P242 - Use only non-sparking tools  
P243 - Take precautionary measures against static discharge  
P260 - Do not breathe mist, vapours, spray  
P264 - Wash exposed skin thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P280 - Wear protective gloves, protective clothing, eye protection, face protection  
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304 + P340 - IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing  
P305 + P351 + P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P308 + P313 - IF exposed or concerned: Get medical advice/attention

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P310 - Immediately call a POISON CENTER or doctor/physician  
P363 - Wash contaminated clothing before reuse  
P370 + P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO<sub>2</sub>), dry extinguishing powder for extinction  
P403 + P235 - Store in a well-ventilated place. Keep cool  
P405 - Store locked up  
P501 - Dispose of contents/container to comply with local, state and federal regulations

### 2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

### 2.4. Unknown acute toxicity (GHS-US)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

| Name                           | Product identifier | %   | GHS-US classification  |
|--------------------------------|--------------------|-----|--|
| Ethanol                        | (CAS No) 64-17-5   | 63  | Flam. Liq. 2, H225<br>Carc. 1A, H350<br>Repr. 2, H361  |
| Water                          | (CAS No) 7732-18-5 | 27  | Not classified   |
| Methanol                       | (CAS No) 67-56-1   | 3.5 | Flam. Liq. 2, H225<br>Acute Tox. 3 (Oral), H301<br>Acute Tox. 3 (Dermal), H311<br>Acute Tox. 3 (Inhalation), H331<br>STOT SE 1, H370 |
| Isopropyl Alcohol (2-Propanol) | (CAS No) 67-63-0   | 3.5 | Flam. Liq. 2, H225<br>Eye Irrit. 2A, H319<br>STOT SE 3, H336   |
| Hydrochloric Acid, 37% w/w     | (CAS No) 7647-01-0 | 3   | Acute Tox. 4 (Oral), H302<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>STOT SE 3, H335<br>Aquatic Acute 3, H402                     |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention. Call a POISON CENTER or doctor/physician.

First-aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Causes severe skin burns and eye damage. Suspected of damaging fertility or the unborn child. Causes damage to organs.

Symptoms/injuries after skin contact : Caustic burns/corrosion of the skin.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Nausea. Vomiting. Dizziness. Diarrhoea. Central nervous system depression.

Chronic symptoms : Enlargement/affection of the liver. Kidney disorders.

### 4.3. Indication of any immediate medical attention and special treatment needed

Obtain medical assistance.

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapour.
- Explosion hazard : May form flammable/explosive vapour-air mixture.
- Reactivity : Thermal decomposition generates : Corrosive vapours.

#### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

##### 6.1.1. For non-emergency personnel

- Protective equipment : Safety glasses. Protective clothing. Gloves. Face-shield.
- Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection. Avoid breathing mist, Vapors, spray.
- Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

- Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

#### 6.4. Reference to other sections

- See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No naked lights. No smoking. Use only non-sparking tools. Do not breathe mist, vapours, spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
- Hygiene measures : Wash exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/... equipment. Comply with applicable regulations.
- Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources., Ignition sources, incompatible materials. Keep in fireproof place. Keep container tightly closed.
- Incompatible products : Strong bases. Strong oxidizers.
- Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

#### 7.3. Specific end use(s)

- No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

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| Ethanol (64-17-5) |                        |            |
|-------------------|------------------------|------------|
| USA OSHA          | OSHA PEL (TWA) (mg/m³) | 1900 mg/m³ |
| USA OSHA          | OSHA PEL (TWA) (ppm)   | 1000 ppm   |

| Methanol (67-56-1) |                        |           |
|--------------------|------------------------|-----------|
| USA ACGIH          | ACGIH TWA (ppm)        | 200 ppm   |
| USA ACGIH          | ACGIH STEL (ppm)       | 200 ppm   |
| USA OSHA           | OSHA PEL (TWA) (mg/m³) | 260 mg/m³ |
| USA OSHA           | OSHA PEL (TWA) (ppm)   | 200 ppm   |

| Isopropyl Alcohol (2-Propanol) (67-63-0) |                        |           |
|--|------------------------|-----------|
| USA ACGIH                                | ACGIH TWA (ppm)        | 200 ppm   |
| USA ACGIH                                | ACGIH STEL (ppm)       | 200 ppm   |
| USA OSHA                                 | OSHA PEL (TWA) (mg/m³) | 980 mg/m³ |
| USA OSHA                                 | OSHA PEL (TWA) (ppm)   | 400 ppm   |

| Hydrochloric Acid, 37% w/w (7647-01-0) |                            |            |
|--|----------------------------|------------|
| USA ACGIH                              | ACGIH Ceiling (mg/m³)      | 2.98 mg/m³ |
| USA ACGIH                              | ACGIH Ceiling (ppm)        | 2 ppm      |
| USA OSHA                               | OSHA PEL (Ceiling) (mg/m³) | 7 mg/m³    |
| USA OSHA                               | OSHA PEL (Ceiling) (ppm)   | 5 ppm      |

### 8.2. Exposure controls

|                                  |   |
|----------------------------------|---|
| Appropriate engineering controls | : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation. |
| Personal protective equipment    | : Avoid all unnecessary exposure.   |
| Hand protection                  | : Wear protective gloves.   |
| Eye protection                   | : Chemical goggles or face shield.  |
| Skin and body protection         | : Wear suitable protective clothing.  |
| Respiratory protection           | : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.  |
| Other information                | : Do not eat, drink or smoke during use.  |

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|  |                       |
|--|-----------------------|
| Physical state                             | : Liquid              |
| Colour                                     | : Colourless          |
| Odour                                      | : characteristic;mild |
| Odour threshold                            | : No data available   |
| pH   | : 0.4                 |
| Relative evaporation rate (butylacetate=1) | : No data available   |
| Melting point                              | : No data available   |
| Freezing point                             | : No data available   |
| Boiling point                              | : No data available   |
| Flash point                                | : No data available   |
| Auto-ignition temperature                  | : No data available   |
| Decomposition temperature                  | : No data available   |
| Flammability (solid, gas)                  | : No data available   |
| Vapour pressure                            | : No data available   |
| Relative vapour density at 20 °C           | : No data available   |
| Relative density                           | : No data available   |

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|                      |  |
|----------------------|--|
| Solubility           | : Soluble in water.<br>Water: Solubility in water of component(s) of the mixture :<br>• Hydrochloric Acid, 37% w/w: Complete • Ethanol: Complete • Methanol: Complete • Isopropyl Alcohol (2-Propanol): Complete |
| Log Pow              | : No data available  |
| Log Kow              | : No data available  |
| Viscosity, kinematic | : No data available  |
| Viscosity, dynamic   | : No data available  |
| Explosive properties | : No data available  |
| Oxidising properties | : No data available  |
| Explosive limits     | : No data available  |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

### 10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

### 10.3. Possibility of hazardous reactions

Reacts violently with (some) bases: release of heat.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

### 10.5. Incompatible materials

Strong oxidizers. Strong bases. Ammonia.

### 10.6. Hazardous decomposition products

Hydrogen chloride. Carbon monoxide. Carbon dioxide. May release flammable gases. Thermal decomposition generates : Corrosive vapours.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| Ethanol (64-17-5)                        |  |
|--|--|
| LD50 oral rat                            | 10740 mg/kg (Rat; Experimental value,Rat; Experimental value)  |
| LD50 dermal rabbit                       | > 16000 mg/kg (Rabbit)   |
| ATE US (oral)                            | 10740.00000000 mg/kg bodyweight  |
| Water (7732-18-5)                        |  |
| LD50 oral rat                            | ≥ 90000 mg/kg  |
| ATE US (oral)                            | 90000.00000000 mg/kg bodyweight  |
| Methanol (67-56-1)                       |  |
| LD50 oral rat                            | > 5000 mg/kg (1187-2769 mg/kg bodyweight; Rat; Rat)  |
| LD50 dermal rabbit                       | 15800 mg/kg (Rabbit)   |
| LC50 inhalation rat (mg/l)               | 85 mg/l/4h (Rat)   |
| LC50 inhalation rat (ppm)                | 64000 ppm/4h (Rat)   |
| ATE US (oral)                            | 100.00000000 mg/kg bodyweight  |
| ATE US (dermal)                          | 300.00000000 mg/kg bodyweight  |
| ATE US (gases)                           | 700.00000000 ppmv/4h   |
| ATE US (vapours)                         | 3.00000000 mg/l/4h   |
| ATE US (dust,mist)                       | 0.50000000 mg/l/4h   |
| Isopropyl Alcohol (2-Propanol) (67-63-0) |  |
| LD50 oral rat                            | 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) |

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| Isopropyl Alcohol (2-Propanol) (67-63-0) |  |
|--|--|
| LD50 dermal rabbit                       | 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value, 16.4; Rabbit; Rabbit; Experimental value) |
| LC50 inhalation rat (mg/l)               | 73 mg/l/4h (Rat)   |
| ATE US (oral)                            | 5045.00000000 mg/kg  |
| ATE US (dermal)                          | 12870.00000000 mg/kg   |
| ATE US (vapours)                         | 73.00000000 mg/l/4h  |

| Hydrochloric Acid, 37% w/w (7647-01-0) |                                |
|--|--------------------------------|
| LD50 oral rat                          | 700 mg/kg                      |
| LD50 dermal rabbit                     | 5010 mg/kg                     |
| ATE US (oral)                          | 700.00000000 mg/kg bodyweight  |
| ATE US (dermal)                        | 5010.00000000 mg/kg bodyweight |

Skin corrosion/irritation : Causes severe skin burns and eye damage.  
pH: 0.4

Serious eye damage/irritation : Causes serious eye damage.  
pH: 0.4

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

| Ethanol (64-17-5) |                            |
|-------------------|----------------------------|
| IARC group        | 1 - Carcinogenic to humans |

| Isopropyl Alcohol (2-Propanol) (67-63-0) |                      |
|--|----------------------|
| IARC group                               | 3 - Not classifiable |

| Hydrochloric Acid, 37% w/w (7647-01-0) |                      |
|--|----------------------|
| IARC group                             | 3 - Not classifiable |

Reproductive toxicity : Suspected of damaging fertility or the unborn child.  
Specific target organ toxicity (single exposure) : Causes damage to organs (central nervous system, optic nerve).

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/injuries after skin contact : Caustic burns/corrosion of the skin.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Nausea. Vomiting. Dizziness. Diarrhoea. Central nervous system depression.

Chronic symptoms : Enlargement/affection of the liver. Kidney disorders.

## SECTION 12: Ecological information

### 12.1. Toxicity

| Ethanol (64-17-5)                         |   |
|---|---|
| LC50 fishes 1                             | 14200 mg/l (96 h; Pimephales promelas; Nominal concentration) |
| EC50 Daphnia 1                            | 9300 mg/l (48 h; Daphnia magna)                               |
| LC50 fish 2                               | 13000 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)        |
| EC50 Daphnia 2                            | 10800 mg/l (24 h; Daphnia magna)                              |
| Threshold limit other aquatic organisms 1 | 65 mg/l (72 h; Protozoa)                                      |
| Threshold limit algae 1                   | 1450 mg/l (192 h; Microcystis aeruginosa; Growth rate)        |
| Threshold limit algae 2                   | 5000 mg/l (168 h; Scenedesmus quadricauda; Growth rate)       |

| Methanol (67-56-1) |  |
|--------------------|--|
| LC50 fishes 1      | 15400 mg/l (96 h; Lepomis macrochirus; Lethal)         |
| EC50 Daphnia 1     | > 10000 mg/l (48 h; Daphnia magna; Lethal)             |
| LC50 fish 2        | 10800 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss) |

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| <b>Methanol (67-56-1)</b>                 |  |
|---|--|
| EC50 Daphnia 2                            | 24500 mg/l (48 h; Daphnia magna)           |
| Threshold limit other aquatic organisms 1 | 6600 mg/l (16 h; Pseudomonas putida)       |
| Threshold limit algae 1                   | 530 mg/l (192 h; Microcystis aeruginosa)   |
| Threshold limit algae 2                   | 8000 mg/l (168 h; Scenedesmus quadricauda) |

| <b>Isopropyl Alcohol (2-Propanol) (67-63-0)</b> |   |
|---|---|
| LC50 fishes 1                                   | 4200 mg/l (96 h; Rasbora heteromorpha; Flow-through system) |
| EC50 Daphnia 1                                  | > 10000 mg/l (48 h; Daphnia magna)                          |
| LC50 fish 2                                     | 9640 mg/l (96 h; Pimephales promelas; Lethal)               |
| EC50 Daphnia 2                                  | 13299 mg/l (48 h; Daphnia magna)                            |
| Threshold limit algae 1                         | > 1000 mg/l (72 h; Scenedesmus subspicatus; Growth rate)    |
| Threshold limit algae 2                         | 1800 mg/l (72 h; Algae; Cell numbers)                       |

| <b>Hydrochloric Acid, 37% w/w (7647-01-0)</b> |   |
|---|---|
| LC50 fishes 1                                 | 282 mg/l (96 h; Gambusia affinis; Pure substance) |
| EC50 Daphnia 1                                | < 56 mg/l (72 h; Daphnia magna; Pure substance)   |
| LC50 fish 2                                   | 862 mg/l (Leuciscus idus; Pure substance)         |
| TLM fish 1                                    | 282 ppm (96 h; Gambusia affinis; Pure substance)  |

### 12.2. Persistence and degradability

| <b>Acid-Alcohol, 3% v/v in 70% Alcohol</b> |                  |
|--|------------------|
| Persistence and degradability              | Not established. |

| <b>Ethanol (64-17-5)</b>        |  |
|---------------------------------|--|
| Persistence and degradability   | Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available. |
| Biochemical oxygen demand (BOD) | 0.8 - 0.967 g O <sub>2</sub> /g substance  |
| Chemical oxygen demand (COD)    | 1.70 g O <sub>2</sub> /g substance   |
| ThOD                            | 2.10 g O <sub>2</sub> /g substance   |
| BOD (% of ThOD)                 | 0.43 % ThOD  |

| <b>Water (7732-18-5)</b>      |                  |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

| <b>Methanol (67-56-1)</b>       |  |
|---------------------------------|--|
| Persistence and degradability   | Readily biodegradable in water. Biodegradable in the soil. |
| Biochemical oxygen demand (BOD) | 0.6 - 1.12 g O <sub>2</sub> /g substance                   |
| Chemical oxygen demand (COD)    | 1.42 g O <sub>2</sub> /g substance                         |
| ThOD                            | 1.5 g O <sub>2</sub> /g substance                          |
| BOD (% of ThOD)                 | 0.8 % ThOD   |

| <b>Isopropyl Alcohol (2-Propanol) (67-63-0)</b> |  |
|---|--|
| Persistence and degradability                   | Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available. |
| Biochemical oxygen demand (BOD)                 | 1.19 g O <sub>2</sub> /g substance   |
| Chemical oxygen demand (COD)                    | 2.23 g O <sub>2</sub> /g substance   |
| ThOD  | 2.40 g O <sub>2</sub> /g substance   |
| BOD (% of ThOD)                                 | 0.49 % ThOD  |

| <b>Hydrochloric Acid, 37% w/w (7647-01-0)</b> |   |
|---|---|
| Persistence and degradability                 | Biodegradability: not applicable. No (test)data on mobility of the components of the mixture available. |
| Biochemical oxygen demand (BOD)               | Not applicable  |
| Chemical oxygen demand (COD)                  | Not applicable  |
| ThOD  | Not applicable  |
| BOD (% of ThOD)                               | Not applicable  |

### 12.3. Bioaccumulative potential

| <b>Acid-Alcohol, 3% v/v in 70% Alcohol</b> |                  |
|--|------------------|
| Bioaccumulative potential                  | Not established. |

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| Ethanol (64-17-5)                        |  |
|--|--|
| Log Pow                                  | -0.31 (Experimental value)                                   |
| Bioaccumulative potential                | Low potential for bioaccumulation (Log Kow < 4).             |
| Water (7732-18-5)                        |  |
| Bioaccumulative potential                | Not established.   |
| Methanol (67-56-1)                       |  |
| BCF fish 1                               | < 10 (Leuciscus idus)  |
| Log Pow                                  | -0.77 (Experimental value; Other, Experimental value; Other) |
| Bioaccumulative potential                | Low potential for bioaccumulation (BCF < 500).               |
| Isopropyl Alcohol (2-Propanol) (67-63-0) |  |
| Log Pow                                  | 0.05 (Experimental value)                                    |
| Bioaccumulative potential                | Low potential for bioaccumulation (Log Kow < 4).             |
| Hydrochloric Acid, 37% w/w (7647-01-0)   |  |
| Log Pow                                  | 0.25 (QSAR)  |
| Bioaccumulative potential                | Low potential for bioaccumulation (Log Kow < 4).             |

### 12.4. Mobility in soil

| Ethanol (64-17-5)                        |   |
|--|---|
| Surface tension                          | 0.022 N/m (20 °C)   |
| Methanol (67-56-1)                       |   |
| Surface tension                          | 0.023 N/m (20 °C)   |
| Isopropyl Alcohol (2-Propanol) (67-63-0) |   |
| Surface tension                          | 0.021 N/m (25 °C)   |
| Hydrochloric Acid, 37% w/w (7647-01-0)   |   |
| Ecology - soil                           | May be harmful to plant growth, blooming and fruit formation. |

### 12.5. Other adverse effects

|                              |  |
|------------------------------|--|
| Effect on ozone layer        | : No additional information available                |
| Effect on the global warming | : No known ecological damage caused by this product. |
| Other information            | : Avoid release to the environment.                  |

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

|                                |  |
|--------------------------------|--|
| Waste disposal recommendations | : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations. |
| Additional information         | : Handle empty containers with care because residual vapours are flammable.  |
| Ecology - waste materials      | : Avoid release to the environment.  |

## SECTION 14: Transport information

|   |   |
|---|---|
| In accordance with DOT                            |   |
| Transport document description                    | : UN2924 Flammable liquids, corrosive, n.o.s. (Ethanol, hydrochloric acid), 3, II |
| UN-No.(DOT)                                       | : 2924  |
| DOT NA no.  | : UN2924  |
| DOT Proper Shipping Name                          | : Flammable liquids, corrosive, n.o.s.  |
| Department of Transportation (DOT) Hazard Classes | : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120                   |
| Hazard labels (DOT)                               | : 3 - Flammable liquid<br>8 - Corrosive   |





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|  |   |
|--|---|
| DOT Symbols  | : G - Identifies PSN requiring a technical name   |
| Packing group (DOT)  | : II - Medium Danger  |
| DOT Special Provisions (49 CFR 172.102)                          | : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.<br>T11 - 6 178.274(d)(2) Normal..... 178.275(d)(3)<br>TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.<br>TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP. |
| DOT Packaging Exceptions (49 CFR 173.xxx)                        | : 150   |
| DOT Packaging Non Bulk (49 CFR 173.xxx)                          | : 202   |
| DOT Packaging Bulk (49 CFR 173.xxx)                              | : 243   |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : 1 L   |
| DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)     | : 5 L   |
| DOT Vessel Stowage Location                                      | : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.   |
| DOT Vessel Stowage Other   | : 40 - Stow "clear of living quarters"  |

### Additional information

Other information : No supplementary information available.

### ADR

Transport document description :

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

| Acid-Alcohol, 3% v/v in 70% Alcohol |   |
|-------------------------------------|---|
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard<br>Fire hazard<br>Delayed (chronic) health hazard |

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

| Methanol (67-56-1)   |  |
|--|--|
| Listed on SARA Section 313 (Specific toxic chemical listings)  |  |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) : | 5000 lb  |
| SARA Section 311/312 Hazard Classes                            | Immediate (acute) health hazard<br>Fire hazard |
| Isopropyl Alcohol (2-Propanol) (67-63-0)                       |  |
| Listed on SARA Section 313 (Specific toxic chemical listings)  |  |

# Acid-Alcohol, 3% v/v in 70% Alcohol

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### Hydrochloric Acid, 37% w/w (7647-01-0)

|  |                                 |
|--|---------------------------------|
| RQ (Reportable quantity, section 304 of EPA's List of Lists) : | 5000 lb                         |
| SARA Section 311/312 Hazard Classes                            | Immediate (acute) health hazard |

### 15.2. International regulations

#### CANADA

##### Acid-Alcohol, 3% v/v in 70% Alcohol

|                      |   |
|----------------------|---|
| WHMIS Classification | Class B Division 2 - Flammable Liquid<br>Class E - Corrosive Material<br>Class D Division 2 Subdivision A - Very toxic material causing other toxic effects |
|----------------------|---|

##### Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

|                      |   |
|----------------------|---|
| WHMIS Classification | Uncontrolled product according to WHMIS classification criteria |
|----------------------|---|

##### Methanol (67-56-1)

Listed on the Canadian DSL (Domestic Substances List) inventory.

|                      |  |
|----------------------|--|
| WHMIS Classification | Class B Division 2 - Flammable Liquid<br>Class D Division 2 Subdivision A - Very toxic material causing other toxic effects<br>Class D Division 2 Subdivision B - Toxic material causing other toxic effects |
|----------------------|--|

##### Isopropyl Alcohol (2-Propanol) (67-63-0)

|                      |  |
|----------------------|--|
| WHMIS Classification | Class B Division 2 - Flammable Liquid<br>Class D Division 2 Subdivision B - Toxic material causing other toxic effects |
|----------------------|--|

##### Hydrochloric Acid, 37% w/w (7647-01-0)

Listed on the Canadian DSL (Domestic Substances List) inventory.

|                      |                              |
|----------------------|------------------------------|
| WHMIS Classification | Class E - Corrosive Material |
|----------------------|------------------------------|

#### EU-Regulations

No additional information available

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

#### Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

#### 15.2.2. National regulations

##### Methanol (67-56-1)

Listed on the Canadian Ingredient Disclosure List

### 15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

##### Methanol (67-56-1)

| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significance risk level (NSRL) |
|---|---|---|---|-----------------------------------|
|   | Yes   |   |   |                                   |

### SECTION 16: Other information

Other information :  
: None.

Full text of H-phrases: see section 16:

|                           |   |
|---------------------------|---|
| Acute Tox. 3 (Dermal)     | Acute toxicity (dermal), Category 3                             |
| Acute Tox. 3 (Inhalation) | Acute toxicity (inhal.), Category 3                             |
| Acute Tox. 3 (Oral)       | Acute toxicity (oral), Category 3                               |
| Acute Tox. 4 (Oral)       | Acute toxicity (oral), Category 4                               |
| Aquatic Acute 3           | Hazardous to the aquatic environment — Acute Hazard, Category 3 |

# Acid-Alcohol, 3% v/v in 70% Alcohol

## Safety Data Sheet

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|               |  |
|---------------|--|
| Carc. 1A      | Carcinogenicity, Category 1A   |
| Eye Dam. 1    | Serious eye damage/eye irritation, Category 1  |
| Eye Irrit. 2A | Serious eye damage/eye irritation, Category 2A   |
| Flam. Liq. 2  | Flammable liquids, Category 2  |
| Repr. 2       | Reproductive toxicity, Category 2  |
| Skin Corr. 1B | Skin corrosion/irritation, Category 1B   |
| STOT SE 1     | Specific target organ toxicity — single exposure, Category 1                               |
| STOT SE 3     | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| STOT SE 3     | Specific target organ toxicity — Single exposure, Category 3, Narcosis                     |
| H225          | Highly flammable liquid and vapour   |
| H301          | Toxic if swallowed   |
| H302          | Harmful if swallowed   |
| H311          | Toxic in contact with skin   |
| H314          | Causes severe skin burns and eye damage  |
| H318          | Causes serious eye damage  |
| H319          | Causes serious eye irritation  |
| H331          | Toxic if inhaled   |
| H335          | May cause respiratory irritation   |
| H336          | May cause drowsiness or dizziness  |
| H350          | May cause cancer   |
| H361          | Suspected of damaging fertility or the unborn child  |
| H370          | Causes damage to organs  |
| H402          | Harmful to aquatic life  |

NFPA health hazard

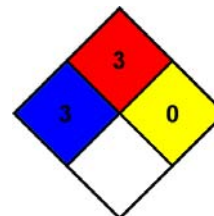
: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard

: 3 - Liquids and solids that can be ignited under almost all ambient conditions.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



### HMIS III Rating

Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability

: 3 Serious Hazard

Physical

: 0 Minimal Hazard

Personal Protection

: H

SDS US (GHS HazCom 2012)

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