

Issue Date 08-Mar-2021

# SAFETY DATA SHEET

Version 5.8

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**1. IDENTIFICATION** Product identifier **Product Name** Sodium Hydroxide Standard Solution 0.01 N Other means of identification Product Code(s) 67132 M00648 Safety data sheet number UN/ID no UN1993 Recommended use of the chemical and restrictions on use **Recommended Use** Water Analysis. Determination of carbon dioxide. Uses advised against None. **Restrictions on use** None. Details of the supplier of the safety data sheet Manufacturer Address Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

Revision Date 23-Jan-2023

#### Emergency telephone number

+1(303) 623-5716 - 24 Hour Service

2. HAZARDS IDENTIFICATION

## **Classification**

#### **Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Flammable liquids                 | Category 3 |
|-----------------------------------|------------|
| Serious eye damage/eye irritation | Category 1 |

#### Hazards not otherwise classified (HNOC)

Not applicable

#### Label elements

Signal word Danger

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Hazard statements H226 - Flammable liquid and vapor H318 - Causes serious eye damage

#### Precautionary statements

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

- P310 Immediately call a POISON CENTER or doctor/physician
- 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
- P280 Wear protective gloves, protective clothing, eye protection, and face protection
- P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
- P403 + P235 Store in a well-ventilated place. Keep cool
- P501 Dispose of contents/ container to an approved waste disposal plant

## Other Hazards Known

None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance

Not applicable

## <u>Mixture</u>

Percent ranges are used where confidential product information is applicable.

| Chemical name     | CAS No    | Percent<br>Range | HMRIC # |
|-------------------|-----------|------------------|---------|
| Isopropyl alcohol | 67-63-0   | 1 - 5%           | -       |
| Sodium hydroxide  | 1310-73-2 | <0.1%            | -       |

## **4. FIRST AID MEASURES**

#### Description of first aid measures

## **General advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

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|--|---|
| Inhalation   | Remove to fresh air. Get medical attention immediately if symptoms occur.   |
| Eye contact  | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical advice/attention. Remove contact lenses, if present and easy to do. Continue rinsing.      |
| Skin contact   | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.  |
| Ingestion  | Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.   |
| Self-protection of the first aider                             | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing.   |
| Most important symptoms and effe                               | cts, both acute and delayed   |
| Symptoms   | Burning sensation.  |
| Indication of any immediate medica                             | al attention and special treatment needed   |
| Note to physicians   | Treat symptomatically.  |
|  |   |
|  | 5. FIRE-FIGHTING MEASURES   |
| Suitable Extinguishing Media                                   | Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.  |
| Unsuitable Extinguishing Media                                 | Caution: Use of water spray when fighting fire may be inefficient.  |
| Specific hazards arising from the chemical                     | Risk of ignition. Keep product and empty container away from heat and sources of ignition.<br>In the event of fire, cool tanks with water spray. Fire residues and contaminated fire<br>extinguishing water must be disposed of in accordance with local regulations. |

Hazardous combustion products Sodium oxides. Carbon monoxide, Carbon dioxide.

Special protective equipment for<br/>fire-fightersFirefighters should wear self-contained breathing apparatus and full firefighting turnout gear.<br/>Use personal protection equipment.

|                                    | 6. ACCIDENTAL RELEASE MEASURES   |
|------------------------------------|--|
| U.S. Notice                        | Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.   |
| Personal precautions, protective e | quipment and emergency procedures  |
| Personal precautions               | Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. |
| Other Information                  | Ventilate the area. Refer to protective measures listed in Sections 7 and 8.   |

## Environmental precautions

| Environmental precautions         | Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.  |  |
|-----------------------------------|---|--|
| Methods and material for containm | ent and cleaning up   |  |
| Methods for containment           | Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. |  |
| Methods for cleaning up           | Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.  |  |
| Prevention of secondary hazards   | Clean contaminated objects and areas thoroughly observing environmental regulations.  |  |
| Reference to other sections       | See section 8 for more information. See section 13 for more information.  |  |

# 7. HANDLING AND STORAGE

#### Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

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

Storage ConditionsKeep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat,<br/>sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static<br/>electricity). Keep in properly labeled containers. Do not store near combustible materials.<br/>Keep in an area equipped with sprinklers. Store locked up. Keep out of the reach of<br/>children. Store in accordance with particular national and local regulations.

Flammability class

#### Class II

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

## Control parameters

## **Exposure Guidelines**

| Chemical name                    | ACGIH TLV                    | OSHA PEL                               | NIOSH                        |
|----------------------------------|------------------------------|--|------------------------------|
| Isopropyl alcohol                | STEL: 400 ppm                | TWA: 400 ppm                           | IDLH: 2000 ppm               |
| CAS#: 67-63-0                    | TWA: 200 ppm                 | TWA: 980 mg/m <sup>3</sup>             | TWA: 400 ppm                 |
|                                  |                              | (vacated) TWA: 400 ppm                 | TWA: 980 mg/m <sup>3</sup>   |
|                                  |                              | (vacated) TWA: 980 mg/m <sup>3</sup>   | STEL: 500 ppm                |
|                                  |                              | (vacated) STEL: 500 ppm                | STEL: 1225 mg/m <sup>3</sup> |
|                                  |                              | (vacated) STEL: 1225 mg/m <sup>3</sup> |                              |
| Sodium hydroxide                 | Ceiling: 2 mg/m <sup>3</sup> | TWA: 2 mg/m <sup>3</sup>               | IDLH: 10 mg/m <sup>3</sup>   |
| CAS#: 1310-73-2                  |                              | (vacated) Ceiling: 2 mg/m <sup>3</sup> | Ceiling: 2 mg/m <sup>3</sup> |
| Appropriate engineering controls |                              |  |                              |

| Individual protection measures, such as personal protective equipmentRespiratory protectionNo protective equipment is needed under normal use conditions. If exposure limits are<br>exceeded or irritation is experienced, ventilation and evacuation may be required. Wea<br>breathing apparatus if exposed to vapors/dusts/aerosols.Hand ProtectionWear suitable gloves. Impervious gloves. Gloves must be inspected prior to use. The<br>selected protective gloves have to satisfy the specifications of EU Directive 2016/425 an<br>the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or<br>nitrile rubber category III according to EN 374-1:2016.Eye/face protectionTight sealing safety goggles.Skin and body protectionWear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.<br>Antistatic boots.General Hygiene ConsiderationsDo not eat, drink or smoke when using this product. Contaminated work clothing should<br>be allowed out of the workplace. Regular cleaning of equipment, work area and clothing<br>recommended. Wash hands before breaks and immediately after handling the product.<br>Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection | Thermal hazards                 | None under normal processing.   |
|---|---------------------------------|---|
| Individual protection measures, such as personal protective equipmentRespiratory protectionNo protective equipment is needed under normal use conditions. If exposure limits are<br>exceeded or irritation is experienced, ventilation and evacuation may be required. Weal<br>breathing apparatus if exposed to vapors/dusts/aerosols.Hand ProtectionWear suitable gloves. Impervious gloves. Gloves must be inspected prior to use. The<br>selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and<br>the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or<br>nitrile rubber category III according to EN 374-1:2016.Eye/face protectionTight sealing safety goggles.Skin and body protectionWear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.<br>Antistatic boots.General Hygiene ConsiderationsDo not eat, drink or smoke when using this product. Contaminated work clothing should<br>be allowed out of the workplace. Regular cleaning of equipment, work area and clothing<br>recommended. Wash hands before breaks and immediately after handling the product.  | Environmental exposure controls | Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.                           |
| Individual protection measures, such as personal protective equipmentRespiratory protectionNo protective equipment is needed under normal use conditions. If exposure limits are<br>exceeded or irritation is experienced, ventilation and evacuation may be required. Weat<br>breathing apparatus if exposed to vapors/dusts/aerosols.Hand ProtectionWear suitable gloves. Impervious gloves. Gloves must be inspected prior to use. The<br>selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and<br>the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or<br>nitrile rubber category III according to EN 374-1:2016.Eye/face protectionTight sealing safety goggles.Skin and body protectionWear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.   | General Hygiene Considerations  |   |
| Individual protection measures, such as personal protective equipmentRespiratory protectionNo protective equipment is needed under normal use conditions. If exposure limits are<br>exceeded or irritation is experienced, ventilation and evacuation may be required. Wea<br>breathing apparatus if exposed to vapors/dusts/aerosols.Hand ProtectionWear suitable gloves. Impervious gloves. Gloves must be inspected prior to use. The<br>selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and<br>the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or<br>nitrile rubber category III according to EN 374-1:2016.   | Skin and body protection        |   |
| Individual protection measures, such as personal protective equipment   Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Wea breathing apparatus if exposed to vapors/dusts/aerosols.   Hand Protection Wear suitable gloves. Impervious gloves. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or  | Eye/face protection             | Tight sealing safety goggles.   |
| Individual protection measures, such as personal protective equipment   Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Wea   | Hand Protection                 | selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or |
|   |                                 | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Wear     |
| Engineering Controls Showers<br>Eyewash stations<br>Ventilation systems.  |                                 | Eyewash stations<br>Ventilation systems.  |

# 9. PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

| Physical state<br>Appearance<br>Odor | aqueous solution<br>Odorless | Liquid |                 | Color<br>Odor threshold | colorless<br>No data ava | ailable          |
|--------------------------------------|------------------------------|--------|-----------------|-------------------------|--------------------------|------------------|
| Property_                            |                              |        | Values          |                         |                          | Remarks • Method |
| Molecular weight                     | :                            |        | No data availal | ble                     |                          |                  |
| рН                                   |                              |        | 11.7            |                         |                          | @ 20 °C          |
| Melting point / fre                  | ezing point                  |        | ~ -2 °C / 2     | 8.4 °F                  |                          |                  |
| Initial boiling poi                  | nt and boiling rang          | е      | 94 °C / 201     | .2 °F                   |                          |                  |
| Evaporation rate                     |                              |        | 1.01 (water = 1 | )                       |                          |                  |
| Vapor pressure                       |                              |        | 23.477 mm Hg    | / 3.13 kPa at 2         | 5 °C / 77 °I             | F                |
| Relative vapor de                    | ensity                       |        | 0.64            |                         |                          |                  |
| Specific Gravity                     |                              |        | 0.992           |                         |                          |                  |
| Partition coefficie                  | ent                          |        | Not applicable  |                         |                          |                  |
| Soil Organic Carl<br>Coefficient     | oon-Water Partitior          | ı      | Not applicable  |                         |                          |                  |
| Autoignition tem                     | perature                     |        | No data availal | ble                     |                          |                  |

| Decomposition temperature | No data available |
|---------------------------|-------------------|
| Dynamic viscosity         | No data available |
|                           |                   |

**Kinematic viscosity** 

No data available

## Solubility(ies)

## Water solubility

| Water solubility classification | Water solubility | Water Solubility Temperature |
|---------------------------------|------------------|------------------------------|
| Soluble                         | > 1000 mg/L      | 25 °C / 77 °F                |

#### Solubility in other solvents

| Chemical Name               | Solubility classification | <u>Solubility</u> | Solubility Temperature |
|-----------------------------|---------------------------|-------------------|------------------------|
| Acid                        | Soluble                   | > 1000 mg/L       | 25 °C / 77 °F          |
| Most Polar Organic Solvents | Soluble                   | > 1000 mg/L       | 25 °C / 77 °F          |

#### **Other information**

## **Metal Corrosivity**

Steel Corrosion Rate Aluminum Corrosion Rate No data available No data available

## Volatile Organic Compounds (VOC) Content

See ingredients information below

| Chemical name     | CAS No    | Volatile organic compounds<br>(VOC) content | CAA (Clean Air Act) |
|-------------------|-----------|---|---------------------|
| Isopropyl alcohol | 67-63-0   | 100%  | Х                   |
| Sodium hydroxide  | 1310-73-2 | No data available                           | -                   |

**Explosive properties** 

| Upper explosion limit<br>Lower explosion limit                                      | No data available<br>No data available |
|---|--|
| Flammable properties  |  |
| Flash point<br>Method   | 57 °C / 134.6 °F<br>CC (closed cup)    |
| Flammability Limit in Air<br>Upper flammability limit:<br>Lower flammability limit: | No data available<br>No data available |
| Oxidizing properties  | No data available.                     |
| Bulk density  | No data available                      |

# **10. STABILITY AND REACTIVITY**

# Reactivity

Not applicable.

EN / AGHS

#### <u>Chemical stability</u> Stable under normal conditions.

# Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge Yes.

## Possibility of hazardous reactions

None under normal processing.

#### <u>Hazardous polymerization</u> None under normal processing.

None under normal processing

## Conditions to avoid

Heat, flames and sparks.

## Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

## Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

## **11. TOXICOLOGICAL INFORMATION**

## Information on likely routes of exposure

## **Product Information**

| Inhalation   | No known effect based on information supplied.  |  |  |  |
|--------------|---|--|--|--|
| Eye contact  | Severely irritating to eyes. Causes serious eye damage. May cause burns. May cause irreversible damage to eyes. |  |  |  |
| Skin contact | May cause irritation.   |  |  |  |
| Ingestion    | Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.                                 |  |  |  |
| Symptoms     | Redness. Burning. May cause blindness.  |  |  |  |

## Acute toxicity

Based on available data, the classification criteria are not met

## Mixture

No data available.

## Ingredient Acute Toxicity Data

No data available.

| Chemical name                                  | Endpoint<br>type           | Reported dose    | Exposure<br>time | Toxicological effects            | Key literature references and<br>sources for data       |
|--|----------------------------|------------------|------------------|----------------------------------|---|
| Isopropyl alcohol<br>(1 - 5%)<br>CAS#: 67-63-0 | Rat<br>LD₅₀                | 4710 mg/kg       | None reported    | Behavioral<br>General anesthetic | OECD 429: Skin Sensitization:<br>Local Lymph Node Assay |
| Chemical name                                  | Endpoint<br>type           | Reported<br>dose | Exposure<br>time | Toxicological effects            | Key literature references and<br>sources for data       |
| Isopropyl alcohol<br>(1 - 5%)<br>CAS#: 67-63-0 | Rabbit<br>LD <sub>50</sub> | 4059 mg/kg       | None reported    | None reported                    | LOLI  |
| Chemical name                                  | Endpoint                   | Reported         | Exposure         | Toxicological effects            | Key literature references and                           |
|  | type                       | dose             | time             |                                  | sources for data  |
| Isopropyl alcohol                              | Rat                        | 72.6 mg/L        | 4 hours          | Behavioral                       | RTECS   |

| (1 - 5%)      | LC50 | General anesthetic |  |
|---------------|------|--------------------|--|
| CAS#: 67-63-0 |      | Lungs, Thorax, or  |  |
|               |      | Respiration        |  |
|               |      | Other changes      |  |

## Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity.

## Acute Toxicity Estimations (ATE)

| ATEmix (oral)                 | No information available |
|-------------------------------|--------------------------|
| ATEmix (dermal)               | No information available |
| ATEmix (inhalation-dust/mist) | No information available |
| ATEmix (inhalation-vapor)     | No information available |
| ATEmix (inhalation-gas)       | No information available |

## Skin corrosion/irritation

May cause skin irritation.

#### Mixture

Test data reported below.

| United StatesRabbit0.5 mLtimeNot corrosivesources for dataDepartment of4 hours0 rirritating toOutside testingTransportation (DOT)skinskin | Transportation (DOT) |  | <u>Reported dose</u><br>0.5 mL |  | Not corrosive or irritating to |  |
|---|----------------------|--|--------------------------------|--|--------------------------------|--|
|---|----------------------|--|--------------------------------|--|--------------------------------|--|

## Ingredient Skin Corrosion/Irritation Data

No data available.

| Chemical name                                  | Test method             | Species | Reported<br>dose | Exposure<br>time | Results            | Key literature<br>references and<br>sources for data |
|--|-------------------------|---------|------------------|------------------|--------------------|--|
| Isopropyl alcohol<br>(1 - 5%)<br>CAS#: 67-63-0 | Standard Draize<br>Test | Rabbit  | 500 mg           | None reported    | Mild skin irritant | RTECS  |
| Sodium hydroxide<br>(<0.1%)<br>CAS#: 1310-73-2 | Patch test              | Human   | 20 mg            | 24 hours         | Corrosive to skin  | RTECS  |

## Serious eye damage/irritation

Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

## Mixture

No data available.

## Ingredient Eye Damage/Eye Irritation Data

No data available.

| Chemical name                                  | Test method             | Species | Reported<br>dose | Exposure<br>time | Results           | Key literature<br>references and<br>sources for data |
|--|-------------------------|---------|------------------|------------------|-------------------|--|
| Isopropyl alcohol<br>(1 - 5%)<br>CAS#: 67-63-0 | Standard Draize<br>Test | Rabbit  | 100 mg           | None reported    | Corrosive to eyes | RTECS  |
| Sodium hydroxide<br>(<0.1%)<br>CAS#: 1310-73-2 | Standard Draize<br>Test | Rabbit  | 0.05 mg          | 24 hours         | Corrosive to eyes | RTECS  |

## Respiratory or skin sensitization

Based on available data, the classification criteria are not met.

#### Mixture

No data available.

## **Ingredient Sensitization Data**

No data available.

| Chemical name                                  | Test method   | Species    | Results                               | Key literature references and<br>sources for data       |
|--|---------------|------------|---------------------------------------|---|
| lsopropyl alcohol<br>(1 - 5%)<br>CAS#: 67-63-0 | None reported | Guinea pig | Not confirmed to be a skin sensitizer | OECD 429: Skin Sensitization: Local<br>Lymph Node Assay |

#### STOT - single exposure

Based on available data, the classification criteria are not met.

#### Mixture

No data available.

#### Ingredient Specific Target Organ Toxicity Single Exposure Data No data available.

| Chemical name     | Endpoint | Reported  | Exposure      | Toxicological effects            | Key literature references and |
|-------------------|----------|-----------|---------------|----------------------------------|-------------------------------|
|                   | type     | dose      | time          |                                  | sources for data              |
| Isopropyl alcohol | Human    | 223 mg/kg | None reported | Behavioral                       | RTECS                         |
| (1 - 5%)          | TDLo     |           |               | Hallucinations, Distorted        |                               |
| CAS#: 67-63-0     |          |           |               | perceptions                      |                               |
|                   |          |           |               | Cardiac                          |                               |
|                   |          |           |               | Pulse rate decrease with fall in |                               |
|                   |          |           |               | BP                               |                               |
|                   |          |           |               | Vascular                         |                               |
|                   |          |           |               | BP lowering not characterized in |                               |
|                   |          |           |               | autonomic section                |                               |
| Chemical name     | Endpoint | Reported  | Exposure      | Toxicological effects            | Key literature references and |
|                   | type     | dose      | time          | _                                | sources for data              |
| Isopropyl alcohol | Human    | 35 mg/L   | 4 hours       | Cardiac                          | RTECS                         |
| (1 - 5%)          | TCLo     | -         |               | Pulse rate decrease with fall in |                               |
| CAS#: 67-63-0     |          |           |               | BP                               |                               |
|                   |          |           |               | Lungs, Thorax, or                |                               |
|                   |          |           |               | Respiration                      |                               |
|                   |          |           |               | Other changes                    |                               |

## STOT - repeated exposure

Based on available data, the classification criteria are not met.

#### **Mixture**

No data available.

# Ingredient Specific Target Organ Toxicity Repeat Exposure Data

No data available.

## **Carcinogenicity**

Based on available data, the classification criteria are not met.

#### Mixture

No data available.

## Ingredient Carcinogenicity Data

No data available.

| Chemical name     | CAS No    | ACGIH | IARC    | NTP | OSHA |
|-------------------|-----------|-------|---------|-----|------|
| Isopropyl alcohol | 67-63-0   | -     | Group 3 | -   | Х    |
| Sodium hydroxide  | 1310-73-2 | -     | -       | -   | -    |

EN / AGHS

## Legend

| ACGIH (American Conference of Governmental Industrial Hygienists) | Does not apply                        |
|---|---------------------------------------|
| IARC (International Agency for Research on Cancer)                | Group 3 - Not classifiable as a human |
|   | carcinogen                            |
| NTP (National Toxicology Program)                                 | Does not apply                        |
| OSHA  | X - Present                           |

#### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

**Mixture** invitro **Data** No data available.

**Substance** invitro **Data** No data available.

Mixture invivo Data No data available.

# Substance invivo Data No data available.

| Chemical name                                  | Test                    | Species | Reported<br>dose | Exposure<br>time | Results                                  | Key literature<br>references and<br>sources for data |
|--|-------------------------|---------|------------------|------------------|--|--|
| lsopropyl alcohol<br>(1 - 5%)<br>CAS#: 67-63-0 | Cytogenetic<br>analysis | Rat     | 0.00103 mg/L     | 16 weeks         | Positive test result for<br>mutagenicity | RTECS  |

#### Reproductive toxicity

Based on available data, the classification criteria are not met.

## Mixture

No data available.

## Ingredient Reproductive Toxicity Data

No data available.

| Chemical name     | Endpoint | Reported   | Exposure      | Toxicological effects      | Key literature references and |
|-------------------|----------|------------|---------------|----------------------------|-------------------------------|
|                   | type     | dose       | time          |                            | sources for data              |
| Isopropyl alcohol | Rat      | 32.4 mg/kg | None reported | Effects on Embryo or Fetus | RTECS                         |
| (1 - 5%)          | TDLo     |            |               | Fetal death                |                               |
| CAS#: 67-63-0     |          |            |               |                            |                               |
| Chemical name     | Endpoint | Reported   | Exposure      | Toxicological effects      | Key literature references and |
|                   | type     | dose       | time          | _                          | sources for data              |
| Isopropyl alcohol | Rat      | 7000 mg/L  | 19 days       | Specific Developmental     | RTECS                         |
| (1 - 5%)          | TCLo     | _          |               | Abnormalities              |                               |
| CAS#: 67-63-0     |          |            |               | Musculoskeletal system     |                               |

#### Aspiration hazard

Based on available data, the classification criteria are not met.

# **12. ECOLOGICAL INFORMATION**

#### Ecotoxicity

Unknown aquatic toxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

**Mixture** 

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**Aquatic Acute Toxicity** No data available.

**Aquatic Chronic Toxicity** No data available.

## Substance

# **Aquatic Acute Toxicity**

No data available.

| Chemical name                                  | Exposure<br>time | Species                 | Endpoint<br>type | Reported dose | Key literature references and<br>sources for data |
|--|------------------|-------------------------|------------------|---------------|---|
| lsopropyl alcohol<br>(1 - 5%)<br>CAS#: 67-63-0 | 96 hours         | Pimephales promelas     | LC <sub>50</sub> | 4200 mg/L     | IUCLID  |
| Sodium hydroxide<br>(<0.1%)<br>CAS#: 1310-73-2 | 96 hours         | Oncorhynchus mykiss     | LC <sub>50</sub> | 45.4 mg/L     | IUCLID  |
| Chemical name                                  | Exposure<br>time | Species                 | Endpoint<br>type | Reported dose | Key literature references and<br>sources for data |
| Isopropyl alcohol<br>(1 - 5%)<br>CAS#: 67-63-0 | 48 Hours         | None reported           | LC <sub>50</sub> | 1400 mg/L     | IUCLID  |
| Sodium hydroxide<br>(<0.1%)<br>CAS#: 1310-73-2 | 48 Hours         | Daphnia sp.             | EC <sub>50</sub> | 40.4 mg/L     | IUCLID  |
| Chemical name                                  | Exposure<br>time | Species                 | Endpoint<br>type | Reported dose | Key literature references and<br>sources for data |
| Isopropyl alcohol<br>(1 - 5%)<br>CAS#: 67-63-0 | 72 Hours         | Scenedesmus subspicatus | EC <sub>50</sub> | > 1000 mg/L   | IUCLID  |

**Aquatic Chronic Toxicity** No data available.

#### Persistence and degradability

Mixture No data available.

Mixture No data available.

#### **Partition coefficient**

Mobility

Soil Organic Carbon-Water Partition Coefficient

Not applicable

Not applicable

#### Other adverse effects No information available

## **13. DISPOSAL CONSIDERATIONS**

| EN / AGHS                              | Page 11/1  |
|--|--|
| Contaminated packaging                 | Empty containers pose a potential fire and explosion hazard. Do not cut, puncture of weld  |
| Waste from residues/unused<br>products | Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
| Waste treatment methods                |  |

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|--|--|
|  | containers.  |
| US EPA Waste Number  | D001   |
| Special instructions for disposal                              | Do not breathe the fumes. Work in an approved fume hood. Eliminate all sources of ignition. Use only non-sparking tools. Dilute to 3 to 5 times the volume with cold water. Adjust to a pH between 6 and 9 with an acid, such as sulfuric or citric. If permitted by regulation. Open cold water tap completely, slowly pour the reacted material to the drain. Store in flammable rated container. Check with local municipal and state authorities and waste contractors for pertinent local information regarding the proper disposal of chemicals. |

# **14. TRANSPORT INFORMATION**

| DOT<br>UN/ID no<br>Proper shipping name<br>DOT Technical Name<br>Transport hazard class(es)<br>Packing Group<br>Description<br>Emergency Response Guide<br>Number                     | UN1993<br>FLAMMABLE LIQUIDS, N.O.S.<br>Isopropyl alcohol<br>3<br>III<br>UN1993, FLAMMABLE LIQUIDS, N.O.S. (Isopropyl alcohol), 3, III<br>128                                  |
|---|---|
| TDG<br>UN/ID no<br>Proper shipping name<br>TDG Technical Name<br>Transport hazard class(es)<br>Packing Group<br>Description   | UN1993<br>FLAMMABLE LIQUID, N.O.S.<br>Isopropyl alcohol<br>3<br>III<br>UN1993, Flammable liquid, n.o.s. (Isopropyl alcohol), 3, III   |
| IATA<br>UN number or ID number<br>Proper shipping name<br>IATA Technical Name<br>Transport hazard class(es)<br>Packing group<br>ERG Code<br>Description                               | UN1993<br>Flammable liquid, n.o.s.<br>Isopropyl alcohol<br>3<br>III<br>3L<br>UN1993, Flammable liquid, n.o.s. (Isopropyl alcohol), 3, III                                     |
| IMDG<br>UN number or ID number<br>Proper shipping name<br>IMDG Technical Name<br>Transport hazard class(es)<br>Packing Group<br>EmS-No<br>Special precautions for user<br>Description | UN1993<br>FLAMMABLE LIQUID, N.O.S.<br>Isopropyl alcohol<br>3<br>III<br>F-E, S-E<br>223, 274, 955<br>UN1993, FLAMMABLE LIQUID, N.O.S. (Isopropyl alcohol), 3, III, (57°C C.C.) |
| Note:   | No special precautions necessary.   |

## Additional information

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies. If the item is part of a reagent set or kit the classification would change to the following: UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III. If the item is not regulated, the Chemical Kit classification does not apply.

# 15. REGULATORY INFORMATION

National Inventories TSCA DSL/NDSL

Complies Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

## International Inventories

| Complies |
|----------|
| Complies |
|          |

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIOC - New Zealand Inventory of Chemicals

## **US Federal Regulations**

## SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical name                      | SARA 313 - Threshold Values % |
|------------------------------------|-------------------------------|
| Isopropyl alcohol (CAS #: 67-63-0) | 1.0                           |
| SARA 311/312 Hazard Categories     |                               |
| Acute health hazard                | Yes                           |
| Chronic Health Hazard              | Yes                           |
| Fire hazard                        | Yes                           |
| Sudden release of pressure hazard  | No                            |
| Reactive Hazard                    | No                            |

## CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical name                 | CWA - Reportable<br>Quantities | CWA - Toxic Pollutants | CWA - Priority<br>Pollutants | CWA - Hazardous<br>Substances |
|-------------------------------|--------------------------------|------------------------|------------------------------|-------------------------------|
| Sodium hydroxide<br>1310-73-2 | 1000 lb                        | -                      | -                            | Х                             |

#### <u>CERCLA</u>

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical name    | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|------------------|--------------------------|----------------|--------------------------|
| Sodium hydroxide | 1000 lb                  | -              | RQ 1000 lb final RQ      |
| 1310-73-2        |                          |                | RQ 454 kg final RQ       |

## US State Regulations

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#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals

#### U.S. State Right-to-Know Regulations

| Chemical name                 | New Jersey | Massachusetts | Pennsylvania |
|-------------------------------|------------|---------------|--------------|
| Isopropyl alcohol<br>67-63-0  | Х          | X             | Х            |
| Sodium hydroxide<br>1310-73-2 | Х          | X             | Х            |

## U.S. EPA Label Information

| Chemical name     | FIFRA    | FDA             |
|-------------------|----------|-----------------|
| Isopropyl alcohol | 180.0950 | -               |
| Sodium hydroxide  | 180.0910 | 21 CFR 184.1763 |

# 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

**Special Comments** None

**Additional information** 

Global Automotive Declarable Substance List (GADSL) Not applicable **NFPA and HMIS Classifications** 

| NFPA | Health hazards - 3 | Flammability - 2 | Instability - 0      | Physical and chemical<br>properties - |
|------|--------------------|------------------|----------------------|---------------------------------------|
| HMIS | Health hazards - 3 | Flammability - 2 | Physical hazards - 0 | Personal protection -                 |
|      |                    |                  |                      | Х                                     |
|      |                    |                  |                      | - 1                                   |

## Key or legend to abbreviations and acronyms used in the safety data sheet

| NIH<br>NIOSH   | NIH (National Institutes of Health)<br>NIOSH (National Institute for Occupational Safety and Health)                          |
|----------------|---|
| NITE           | Japan National Institute of Technology and Evaluation (NITE)  |
| IUCLID         | IUCLID (The International Uniform Chemical Information Database)  |
| IPCS INCHEM    | IPCS INCHEM (International Programme on Chemical Safety)  |
| INERIS         | INERIS (The National Industrial Environment and Risks Institute)  |
| HSDB           | Insurance)<br>HSDB (Hazardous Substances Data Bank)   |
| GESTIS         | GESTIS (Information System on Hazardous Substances of the German Social Accident  |
| FDA            | FDA (Food & Drug Administration)  |
| ECOSARS        | Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™                                       |
| ERMA           | ERMA (New Zealands Environmental Risk Management Authority)   |
| EPA            | EPA (Environmental Protection Agency)   |
| EEA            | EEA (European Environment Agency)   |
| ECHA           | ECHA (The European Chemicals Agency)  |
| CICAD          | CICAD (Concise International Chemical Assessment Documents)   |
| CEPA           | CEPA (Canadian Environmental Protection Agency)   |
| CDC            | CDC (Center for Disease Control)  |
| CCRIS          | CCRIS (Chemical Carcinogenesis Research Information System)   |
| ACGIH<br>ATSDR | ACGIH (American Conference of Governmental Industrial Hygienists)<br>ATSDR (Agency for Toxic Substances and Disease Registry) |

| Product Code(s)<br>Issue Date 08-M<br>Version 5.8                       |                             | Product Name<br>Revision Date<br>Page 15 / 15  | Sodium Hydroxide Standard Solution 0.01 N<br>23-Jan-2023 |  |  |  |  |
|---|-----------------------------|--|--|--|--|--|--|
| NDFno dataNICNASAustralia National IndusNIOSH IDLHImmediately Dangerous |                             | Istrial Chemicals Not<br>is to Life or Health<br>Safety and Health Ad<br>Ecological Network)<br>oxic Effects of Chemi<br>mation Dataset) for H<br>ent Institute (SYKE)<br>Department of Agricu<br>Department of Comm | ical Substances)<br>Iigh Volume Chemicals<br>Ilture)     |  |  |  |  |
| Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION               |                             |  |  |  |  |  |  |
| TWA   | TWA (time-weighted average) | STEL   | STEL (Short Term Exposure Limit)                         |  |  |  |  |
|   |                             | o  |  |  |  |  |  |

| MAC                    | Maximum Allowat  | ole Concentration                  | Ceiling         | Ceiling Limit Value   |
|------------------------|--|------------------------------------|-----------------|---|
| X                      | Listed   |                                    | Vacated         | These values have no official status. The only<br>binding levels of contaminants are those listed<br>in the final OSHA PEL. These lists are for<br>reference purposes only. Please note that<br>some reference state regulations of these<br>"liberated" exposure limits in their state<br>regulations. |
| SKN*<br>RSP+<br>C<br>M | Skin designation<br>Respiratory sensi<br>Carcinogen<br>mutagen | tization                           | SKN+<br>**<br>R | Skin sensitization<br>Hazard Designation<br>Reproductive toxicant   |
| Prepared By            |  | Hach Product Compliance Department |                 |   |
| Issue Date             |  | 08-Mar-2021                        |                 |   |
| <b>Revision Date</b>   |  | 23-Jan-2023                        |                 |   |
| Revision Note          |  | SDS sections updated 2             |                 |   |

## **Disclaimer**

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

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End of Safety Data Sheet