MATERIAL SAFETY DATA SHEET



Hydrochloric Acid 0.01 Normal in Methanol

SECTION 1 . Product and Company Idenfication

Product Name and Synonym: Hydrochloric Acid 0.01 Normal in Methanol

Product Code: 4095

Material Uses:

Manufacturer: Aqua Solutions, Inc

6913 Hwy 225

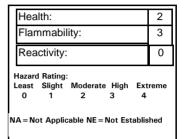
Deer Park, TX 77536

(281) 479-2569

Entry Date : 2/13/2013
Print Date: 2/19/2013

24 Hour Emergency Assistance : Chemtrec 800-424-9300

Canutec 613-996-6666



SECTION 2 HAZARD IDENTIFICATION

Keep away from heat and ignition sources. Harmful if swallowed. Avoid breathing vapors. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

SECTION 3 MIXTURE COMPONENTS

| SARA 313 | Component | CAS Number | Percent Comp. | Dimension | Exposure Limits |
|----------------|-----------------|----------------|---------------|-----------|--|
| ✓ Hydrochloric | c Acid | CAS# 7647-01-0 | 0.08% | V/V | OSHA PEL (C) 5 ppm, (C) 7 mg/m ³ |
| ✓ Methanol (N | Methyl Alcohol) | CAS# 67-56-1 | Balance | V/V | OSHA TWA 200 ppm, ACGIH STEL 250 ppm |

SECTION 4 FIRST AID MEASURES

Keep away from heat and ignition sources. Harmful if swallowed. Avoid breathing vapors. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. if irritation persists, seek medical attention.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type: Carbon Dioxide, dry chemical powder or

appropriate foam

Fire / Explosion Hazards:

Vapor may travel considerable distance to

source of ignition and flash back.

Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing

to prevent contact with skin and clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Eliminate Ignition Sources. Absorb with vermiculite or other inert material. Place in container. If fire hazard exists, blanket spill with alcohol foam or use water spray to disperse vapors.

SECTION 7 HANDLING AND STORAGE

Use in a well ventilated area. Keep container closed when not in use. Do not get on skin in eyes or on clothing. Do not

expose to temperatures avove 140 deg F.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: NIOSH/MSHA-approved respirator

Ventilation

Local Exhaust

Mechanical

Protective Gloves: Wear appropriate gloves to prevent skin exposure

Eye Protection: Splash Goggles

Other Protective Equipment: Wear appropriate clothing to prevent

skin exposure. Use in a well ventilated

area.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point: -144°F Percent Volatile by Volume: >99

Boiling Point: 148°F Evaporation Rate Information not

available

Vapor Pressure: 96 mm Hg Evaporation Standard

Vapor Density: 1.11 Auto Ignition Temp Information not

available

Solubility in Water: Soluble Lower Flamm. Limit in Air 5.5% by Vol.

Appearance /Odors: Colorless Upper Flamm. Limit in Air 36.5% by Vol.

with alcohol

smell

Flash Point: 54°F (Open

cup)

Specific Gravity: 0.792

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability: Stable

Conditions to Avoid: Avoid heat sparks, and open flames.

Materials to Avoid: Acids and Oxidizers

Hazardous Decomposition

Products:

Oxides of carbon

Hazardous polymerization: Will Not Occur

Conditions to Avoid: None known

SECTION 11 Toxicological Information

Toxicity data

United States

Product/ingredient name - o-Methanol

| Test | Route | Species | Result |
|------|-----------------|---------|-------------|
| LD50 | Dermal | Rabbit | 15800 mg/kg |
| LD50 | Intraperitoneal | Rat | 7529 mg/kg |
| LD50 | Intravenous | Rat | 2131 mg/kg |
| LD50 | Oral | Rat | 5628mg/kg |
| LD50 | Oral | Rat | 5600mg/kg |
| LD50 | Oral | Mouse | 7300mg/kg |
| LD50 | Oarl | Rabbit | 14200 mg/kg |

Hydrochloric Acid

LĎ50 900 mg/kg Oral Rabbit

LC50 1108 ppm Inhalation Vapor Mouse

Carcinogenic effects: No known significant effects or critical hazards.

Mutagenic effects: No known significant effects or critical hazards.

Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards.

SECTION 12 Ecological Information

Aquatic ecotoxicity: Product/ ingredient name: Methanol

| Result | Species | Exposure |
|------------------------|--|----------------|
| Acute EC50 22200 to | Daphnia- water flea- Daphnia | 48 hours |
| 23400 mg/L fresh water | obtusa- Neonate-<24 hours | |
| Acute EC50 16000 mg/L | Fish | 48 hours |
| Acute EC50 13200 mg/L | Fish | 48 hours |
| Acute EC50>10000 mg/L | | 48 hours |
| Acute EC50>10000000 | Daphnia magna- 6 to 24 | 48 hours |
| ug/L fresh water | hours | |
| Acute EC50 24500000 to | Daphnia- water flea- Daphnia | 48 hours |
| 29350000 ug/L fresh | megna- LARVAE- <24 hours | |
| water | | |
| Acute EC50 13000000 to | | 96 hours |
| 13400000 ug/L fresh | Oncorhynchus mykiss- Juveni | le (flrdgling, |
| water | hatchling, weanling) - 0.813g | |
| Acute EC50 12700000 to | | 96 hours |
| 13700000 ug/L fresh | macrochirus- juvenile (fledgling | g, hatchling, |
| water | weanling) - 3.07g | |
| | Fish- rainbow trout, donaldso | |
| fresh water | trout- oncorhynchus mykiss-0 | |
| Acute LC50 15400 mg/L | | 96 hours |
| | L Crustaceans- Common shrim | |
| fresh water | sand shrimp- crangon cragor | |
| Acute LC50>100000 ug/l | | 96 hours |
| | oimephales promelas juvenile (f natchling, weanling) - 0.2 to 0.5 | |
| Acute LC50 28200000 | Fish - fathead minnow- | 96 hours |
| | pimephales promelas- 0.12g | 96 110015 |
| | Fish- bleak- Alburnus | 96 hours |
| | llburnus- 8 to 10 cm | 30 110013 |
| Acute LC50 >28000000 | | 96 hours |
| ug/L marine water | alburnus- 8 cm | 50 110015 |
| • | | 48 hours |
| | nagna- neonate <24 hours | io nouio |
| | ish- rainbow trout, donaldson | 96 hours |
| | out- oncorhynchus mykiss- juve | |
| | fledgling, hatchling, weanling) - | |
| | sh- bluegill- lepomis macrochir | |
| | venile (fledgling, hatchling, wea | |
| , | 3.07 g | σ, |
| Acute LC50 >100 mg/L | Fish | 96 hours |
| · · | | |

Acute LC50 >100 mg/L Daphnia

Acute LC50 10000000 Fish - hooknose- agonus

to 33000000 ug/L cataphractus- adult

marine water

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

SECTION 13

Disposal Considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations

96 hours

96 hours

SECTION 14

Transport Information

DOT Classification:

UN1993, Flammable liquid n.o.s., (Methanol),

3, PG II

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15

Regulatory Information

United States

HCS Classification:

Flammable liquid Highly toxic material Irritating material Target organ effects

U.S. Federal regulations:

United States inventory (TSCA 8b): This material is listed or exempted

TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notifications: No products were found.

SARA 302/304/311/312 hazardous chemicals: Methanol

SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: Methanol: Fire

hazard, immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substance: No products were found.

Clean Air Act (CAA) 112 regulated toxic substance: No products were found.

DEA List I Chemicals: not listed

(Precursor Chemicals)

DEA List II Chemicals: not listed

(essential Chemicals)

SARA 313

Form R – Reporting : Methanol CAS number : 67-56-1 Concentration : 100

Requirements

Supplier notification: Methanol CAS number: 67-56-1 Concentration: 100

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

Massachusetts Substance: This material is listed.

New Jersey Hazardous Substances: This material is listed. New York Acutely Hazardous Substances: This material is listed.

Pennsylvania RTK Hazardous Substances: This material is listed.

Canada

WHMIS (Canada) : Class B-2 : Flammable liquid

Class D-1B: Material causing immediate and serious toxic effects (Toxic) Class D-2A: Material causing other toxic effects (Very toxic).

Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists: CEPA Toxic Substance: This material is not listed.

Canadian ARET: This material is not listed. Canadian NPRI: This material is not listed.

Alberta Designated Substances: This material is not listed. Ontario Designated Substances: This material is not listed. Quebec Designated Substances: This material is not listed.

CEPA DSL/ CEPA NDSL: this material is listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

EU regulations:

Risk phrases: R11- Highly Flammable.

R23/24/25- Toxic by inhalation, in contact with skin and if swallowed .

R39/23/24/25- Toxic: danger of very serious irreversible effects through inhalation, in contact

with skin and if swallowed.

Safety phrases: S2- keep out the reach of children.

S7- Keep container tightly closed.

S16- Keep away from sources of ignition – no smoking S36/37- Wear suitable protective clothing and gloves.

S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

International regulations

International lists: Australia inventory (AICS): This material is listed or exempted.

China inventory (IECSC): This material is listed or exempted. Japan inventory (ENCS): This material is listed or exempted.

Japan inventory (ISHL): Not determined.

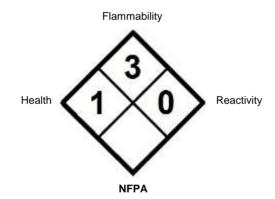
Korea inventory (KECI): This material is listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): This material is listed or exempted.

Philippians inventory (PICCS): This material is listed or exempted

SECTION 16

Additional Information



Revisions

| 9/17/2012 | 0.1 | Revised to 16 sections LS |
|-----------|-----|---------------------------|
| 2/13/2013 | 0 | Creation date 3/4/2009 LS |
| 2/13/2013 | 0.2 | Review date LS |

The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.