

SAFETY DATA SHEET

Revision Date 25-Oct-2017

WAI1 - AGHS - OSHA

Revision Number 4

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

| Product Identifier | |
|--------------------------------------|---|
| Product Name | Ammonia pH - Adjusting ISA |
| Product No | 951211 |
| Pure substance/mixture | Mixture |
| Contains Sodium Hydroxide | |
| Relevant identified uses of the subs | stance or mixture and uses advised against |
| Recommended Use | Use as laboratory reagent |
| Uses advised against | No Information available |
| Manufacturer, Importer, Supplier | Thermo Fisher Scientific© Water and Lab Products 22 Alpha Road Chelmsford, MA 01824, USA 1-978-232-6000 |
| | |
| E-mail address | info.water@thermo.com_ |
| E-mail address Made in | info.water@thermo.com_ USA |

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

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

| Skin Corrosion/irritation | Category 1 |
|--|------------|
| Serious Eye Damage/Eye Irritation | Category 1 |
| Specific target organ toxicity (single exposure) | Category 1 |
| Specific target organ toxicity - (repeated exposure) | Category 2 |

Label Elements

Danger Hazard Statements Causes severe skin burns and eye damage Causes damage to organs May cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prolonged or repeated exposure Image: Cause damage to organs through prol

Precautionary Statements

Prevention

Do not breathe dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection Do not eat, drink or smoke when using this product

Response

Immediately call a POISON CENTER or doctor/physician Specific treatment (see supplemental instructions on the administration of antidotes on this label) IF IN EYES: 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 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Immediately call a POISON CENTER or doctor/physician IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Storage

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC) No information available

Other Information

No information available

4. FIRST AID MEASURES

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS-No | Weight % |
|------------------|-----------|------------|
| Water | 7732-18-5 | 70 - 80% |
| Sodium Hydroxide | 1310-73-2 | 10 - 20% |
| Disodium EDTA | 6381-92-6 | 1 - 10% |
| Thymolphthalein | 125-20-2 | 0.1 - 1.0% |
| Methanol | 67-56-1 | 0.1 - 1.0% |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

| Self-Protection of the First Aider Use personal protective equipment. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiratio with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Most important symptoms and effects, both acute and delayed Most important symptoms and effects. No information available Indication of any immediate medical attention and special treatment needed Notes to Physician Treat symptomatically | 4. FIRST AID MEASURES | |
|---|------------------------------------|--|
| immediately if symptoms occur. Show this safety data sheet to the doctor in attendance.Eye ContactRinse thoroughly with plenty of water, also under the eyelids. Get medical attention.Skin ContactWash off immediately with soap and plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. In case of skin reactions, consult a physician.InhalationMove to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.IngestionClean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Call is physician or Poison Control Center immediately.Self-Protection of the First AiderUse personal protective equipment. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiratio with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.Most important symptoms and effects. both acute and delayedNo information availableIndication of any immediate medical attention and special treatment neededTreat symptomatically | First aid measures | |
| Skin Contact Wash off immediately with soap and plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. In case of skin reactions, consult a physician. Inhalation Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur. Ingestion Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Call a physician or Poison Control Center immediately. Self-Protection of the First Aider Use personal protective equipment. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Most important symptoms and effects, both acute and delayed No information available Indication of any immediate medical attention and special treatment needed Treat symptomatically | General Advice | |
| contaminated clothing and shoes immediately. In case of skin reactions, consult a physician.InhalationMove to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.IngestionClean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Call a physician or Poison Control Center immediately.Self-Protection of the First AiderUse personal protective equipment. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.Most important symptoms and effects, both acute and delayed effectsNo information availableIndication of any immediate medical attention and special treatment needed Notes to PhysicianTreat symptomatically | Eye Contact | Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention. |
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| mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Most important symptoms and effects, both acute and delayed Most important symptoms and effects Indication of any immediate medical attention and special treatment needed Notes to Physician Treat symptomatically | Ingestion | Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Call a physician or Poison Control Center immediately. |
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| effects Indication of any immediate medical attention and special treatment needed Notes to Physician Treat symptomatically | Most important symptoms and effect | cts, both acute and delayed |
| Notes to Physician Treat symptomatically | | No information available |
| | Indication of any immediate medica | I attention and special treatment needed |
| | Notes to Physician | Treat symptomatically |
| 5. FIRE-FIGHTING MEASURES | 5. FIRE-FIGHTING MEASURE | S |
| Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. | | appropriate to local circumstances and the surrounding environment. |

Unsuitable Extinguishing Media

No information available

Specific Hazards Arising from the Chemical

No information available.

Explosion Data

Sensitivity to Mechanical Impact None Sensitivity to Static Discharge None

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

| Personal Precautions Environmental Precautions | Use personal protective equipment. For further specification, refer to section 8 of the SDS. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. |
|---|---|
| Methods and Material for Containm | ent and Cleaning Up |
| Methods for Containment | Prevent further leakage or spillage if safe to do so. |

Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Methods for Cleaning Up

| Handling | To avoid risks to human health and the environment, comply with the instructions for use Wear personal protective equipment Avoid breathing dust/fume/gas/mist/vapors/spray Ensure adequate ventilation, especially in confined areas |
|-------------------------------------|--|
| Conditions for Safe Storage, Includ | ing any Incompatibilities |
| Storage | Keep container tightly closed in a dry and well-ventilated place Store at room temperature in the original container Keep away from direct sunlight |
| Incompatible Products | No information available |
| 8. EXPOSURE CONTROLS/P | ERSONAL PROTECTION |
| Control parameters | |

Exposure Guidelines . Appropriate engineering controls . Engineering Measures Showers Eyewash stations . Ventilation systems . Individual protection measures, such as personal protective equipment . Eye/face Protection Wear chemical splash goggles and face shield. If splashes are likely to occur, wear:..

| Skin and Body Protection | Wear protective gloves/clothing. |
|--------------------------|--|
| Respiratory Protection | None under normal use conditions. In case of inadequate ventilation wear respiratory protection. |
| Hygiene Measures | Handle in accordance with good industrial hygiene and safety practice. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Appearance Odor **Odor Threshold** pН PH Range

Liquid Dark blue weak odor from raw material of alcohol No information available 13.5 No information available

Other Information

Softening Point Molecular Weight VOC Content(%) 1 Density **Bulk Density**

10. STABILITY AND REACTIVITY

Reactivity

No Information available

Chemical Stability

Stable under normal conditions

Possibility of Hazardous Reactions

Values No information available No information available 104.0 °C / 219.2 °F No information available No information available

No information available No information available No information available 1.1 (Methanol) No information available soluble No information available No information available

No information available No information available No Information available No information available

Remarks • Method

None under normal processing

Conditions to Avoid

Extremes of temperature and direct sunlight

Incompatible Materials

No information available

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

| Inhalation | No information available |
|--------------|--------------------------|
| Eye Contact | No information available |
| Skin Contact | No information available |
| Ingestion | No information available |

Information on Toxicological Effects

| Symptoms | No information available |
|-------------------------------------|---|
| Delayed and immediate effects as w | vell as chronic effects from short and long-term exposure |
| Sensitization | No information available |
| Mutagenic Effects | No information available |
| Carcinogenicity | No information available. |
| Reproductive Effects | No information available |
| STOT - single exposure | No information available |
| STOT - repeated exposure | No information available |
| Aspiration hazard | No information available |
| Numerical measures of toxicity - Pr | roduct Information |

The following values are calculated based on chapter 3.1 of the GHS document .

| ATEmix (oral) | 10000 mg/kg |
|-------------------------------|--------------|
| ATEmix (dermal) | 5510 mg/kg |
| ATEmix (inhalation-gas) | 3181981 mg/L |
| ATEmix (inhalation-dust/mist) | 50.1 mg/L |
| ATEmix (inhalation-vapor) | 4169.8 mg/L |

12. ECOLOGICAL INFORMATION

Ecotoxicity

3% of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Component | Freshwater Algae | Freshwater Fish | Water Flea |
|------------------|------------------|------------------------------------|------------|
| Sodium Hydroxide | - | LC50: = 45.4 mg/L, 96h static | - |
| 1310-73-2 | | (Oncorhynchus mykiss) | |
| Methanol | - | LC50: = 28200 mg/L, 96h | - |
| 67-56-1 | | flow-through (Pimephales promelas) | |
| | | LC50: > 100 mg/L, 96h static | |
| | | (Pimephales promelas) | |
| | | LC50: 13500 - 17600 mg/L, 96h | |
| | | flow-through (Lepomis macrochirus) | |
| | | LC50: 18 - 20 mL/L, 96h static | |
| | | (Oncorhynchus mykiss) | |
| | | LC50: 19500 - 20700 mg/L, 96h | |
| | | flow-through (Oncorhynchus | |
| | | mykiss) | |

Persistence and Degradability

No information available

Bioaccumulation/Accumulation

No information available

Mobility

No information available.

| Component | log Pow |
|-----------|---------|
| Methanol | -0.77 |
| 67-56-1 | |

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

 Waste Disposal Methods
 Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Improper disposal or reuse of this container may be dangerous and illegal.

| Component | CAWAST |
|------------------|-----------|
| Sodium Hydroxide | Toxic |
| 1310-73-2 | Corrosive |
| Methanol | Toxic |
| 67-56-1 | Ignitable |

14. TRANSPORT INFORMATION

DOT

| UN-No | UN1824 |
|--------------------------|---|
| Proper Shipping Name | SODIUM HYDROXIDE SOLUTION |
| Hazard Class | 8 |
| Packing Group | III |
| Special Provisions | IB3, N34, T4, TP1 |
| Shipping Description | UN1824, Sodium hydroxide solution, 8, III |
| Emergency Response Guide | 154 |
| Number | |

| ICAO UN-No Proper Shipping Name Hazard Class Packing Group Special Provisions | UN1824 SODIUM HYDROXIDE SOLUTION 8 III A3 |
|--|---|
| Description | UN1824, Sodium hydroxide solution, 8, III |
| IATA UN-No Proper Shipping Name Hazard Class Packing Group ERG Code Special Provisions Description | UN1824 SODIUM HYDROXIDE SOLUTION 8 III 8L A3, A803 UN1824, Sodium hydroxide solution, 8, III |
| IMDG/IMO UN-No Proper Shipping Name Hazard Class Packing Group EmS No. Special Provisions Description | UN1824 SODIUM HYDROXIDE SOLUTION 8 III F-A, S-B 223 UN1824, Sodium hydroxide solution, 8, III |

15. REGULATORY INFORMATION

| International Inventories | |
|---------------------------|-----------------|
| USINV | Complies |
| CANINV | Complies |
| EINECS/ELINCS | Does not Comply |
| ENCS | Does not Comply |
| IECSC | Complies |
| KECL | Does not Comply |
| PICCS | Complies |
| AICS | Complies |

Legend:

USINV/ TSCA - United States Toxic Substances Control Act Section 8(b) Inventory CANINV/ DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances ENCS - Japanese Existing and New Chemical Substances IECSC - Chinese Inventory of Existing Chemical Substances KECL - Korean Existing and Evaluated Chemical Substances PICCS - Philippines Inventory of Chemicals and Chemical Substances AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

| Component | Weight % | SARA 313 - Threshold Values % |
|--------------------|----------|-------------------------------|
| Methanol - 67-56-1 | 0-1 | 1.0 |

SARA 311/312 Hazard Categories

| Acute Health Hazard | No |
|-----------------------------------|----|
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |

Reactive Hazard

No

CWA (Clean Water Act)

| Component | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|-------------------------------|--------------------------------|------------------------|---------------------------|-------------------------------|
| Sodium Hydroxide 1310-73-2 | 1000 lb | - | - | Х |

CERCLA

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)

| Component | Hazardous Substances RQs | CERCLA EHS RQs | RQ |
|------------------|--------------------------|----------------|---------------------|
| Sodium Hydroxide | 1000 lb | - | RQ 1000 lb final RQ |
| 1310-73-2 | | | RQ 454 kg final RQ |
| Methanol | 5000 lb | - | RQ 5000 lb final RQ |
| 67-56-1 | | | RQ 2270 kg final RQ |

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

No information available

16. OTHER INFORMATION

| Prepared By | Regulatory Affairs |
|---------------------|--------------------------------|
| Prepared For | Thermo Fisher Scientific Inc.© |
| Issue Date | No information available |
| Revision Date | 25-Oct-2017 |
| Reason for revision | SDS sections updated. |

Disclaimer

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End of Safety Data Sheet