Page 1 Date Printed 2/3/16 MSDS No: M02684

SAFETY DATA SHEET

Emergency Telephone Numbers:

24 Hour Service

8am - 4pm CST

(Medical and Transportation)

(303) 623-5716

(515)232-2533

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sodium ISE Filling Solution

Catalog Number: 89236-522

Hach Company P.O.Box 389 Loveland, CO USA 80539 (970) 669-3050

MSDS Number: M02684 Chemical Name: Not applicable CAS Number: Not applicable

Additional CAS No. (for hydrated forms): Not applicable

Chemical Formula: Not applicable Chemical Family: Not applicable Intended Use: Analytical reagent

2. HAZARDS IDENTIFICATION

This mixture is not classified as hazardous per GHS (UN publication ST/SG/AC.10/36/Add.3)

GHS Classification:

Hazard categories: Not applicable

GHS Label Elements: Not applicable

> Hazard statements: Not applicable Precautionary statements: Not applicable

Health: 0 Flammability: 0 Reactivity: 0

Protective Equipment: X - See protective equipment, Section 8.

NFPA: Health: 0 Flammability: 0 Reactivity: 0

Symbol: Not applicable

WHMIS Hazard Classification: Not applicable

WHMIS Symbols: Not applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Components according to GHS:

Ammonium Chloride

CAS Number: 12125-02-9 Chemical Formula: NH₄Cl

GHS Classification: Acute Tox. 4-Orl, H302; Skin Irrit. 3, H316; Eye Irrit. 2A, H319; Aq. Acute 2, H401

Percent Range (Trade Secret): <0.2 Percent Range Units: weight / weight

PEL: 15 mg/m3 as inhalable dust; 5 mg/m3 as respirable dust **TLV:** 10 mg/m^3

Page 2 Date Printed 2/3/16 MSDS No: M02684

WHMIS Symbols: Other Toxic Effects
Magnesium Nitrate Hexahvdrate

CAS Number: 10377-60-3

Chemical Formula: Mg(NO₃)₂ 6H₂O

GHS Classification:

Percent Range (Trade Secret): < 0.1
Percent Range Units: weight / weight

PEL: 15 mg/m³ as inhalable dust; 5 mg/m³ as respirable dust **TLV:** 10 mg/m³ as inhalable dust; 3 mg/m³ as respirable dust

WHMIS Symbols: Oxidizing

5-Chloro-2-methyl-4-isothiazolin-3-one / 2-methyl-4-isothiazolin-3-one (3:1)

CAS Number: 55965-84-9

Chemical Formula: Not applicable

GHS Classification: Acute Tox. 2-Orl, H300; Acute Tox. 3-Derm, H311; Skin Corr. 1B, H314; Skin Sens. 1, H317;

Acute Tox. 2-Inh, H330; Muta. 2, H341; Aquatic Chronic 1, H410

Percent Range (Trade Secret): < 0.01 Percent Range Units: weight / weight

PEL: Not established **TLV:** Not established

WHMIS Symbols: Acute PoisonOther Toxic EffectsCorrosive

Hazardous Components according to GHS: No

Demineralized Water

CAS Number: 7732-18-5 Chemical Formula: H₂O

GHS Classification: Not a dangerous substance according to GHS.

Percent Range (Trade Secret): > 99.0 Percent Range Units: weight / weight

PEL: Not established **TLV:** Not established

WHMIS Symbols: Not applicable

4. FIRST AID MEASURES

General Information: In the event of exposure, show this Material Safety Data Sheet and label (where possible) to a

doctor.

Advice to doctor: Treat symptomatically.

Eye Contact: Flush eyes with water. Call physician if irritation develops.

Skin Contact (First Aid): Wash skin with plenty of water.

Inhalation: None required.

Ingestion (First Aid): Do not induce vomiting. Give large quantities of water. Call physician immediately. Never give

anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flammable Properties: Material will not burn.

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective

gear. Evacuate area and fight fire from a safe distance.

Extinguishing Media: Use media appropriate to surrounding fire conditions

Extinguishing Media NOT To Be Used: Not applicable

Fire / Explosion Hazards: None reported

Hazardous Combustion Products: None reported

Page 3 Date Printed 2/3/16 MSDS No: M02684

6. ACCIDENTAL RELEASE MEASURES

Spill Response 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.

Containment Technique: Absorb spilled liquid with non-reactive sorbent material. Dike large spills to keep spilled material from entering sewage and drainage systems or bodies of water.

Clean-up Technique: If permitted by regulation, Absorb spilled liquid with non-reactive sorbent material. Sweep up material. Place material in a plastic bag. Mark bag 'Non-hazardous trash', and dispose of as normal refuse. Otherwise, Dispose of in accordance with local, state and federal regulations or laws.

Evacuation Procedure: Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation

DOT Emergency Response Guide Number: Not applicable

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes Wash thoroughly after handling.

Storage: Keep container tightly closed when not in use.

Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: safety glasses with top and side shields

Skin Protection: disposable latex gloves In the EU, the selected gloves must satisfy the specifications of EU Directive

89/686/EEC and standard EN 374 derived from it. *Inhalation Protection:* adequate ventilation

Precautionary Measures: Avoid contact with: eyes Wash thoroughly after handling.

TLV: Not established **PEL:** Not established

For Occupational Exposure Limits (OEL) for ingredients, see section 3 - Composition/Information on Ingredients.:

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid

Physical State: Liquid

Molecular Weight: Not applicable

Odor: Slight ammonia

Odor Threshold: Not determined

pH: Not determined
Metal Corrosivity:

Corrosivity Classification: Not classified as corrosive to metals according to GHS criteria.

Steel: Not determined Aluminum: Not determined

Specific Gravity/Relative Density (water = 1; air = 1): ~ 1

Viscosity: Not determined

Solubility:

Water: Miscible Acid: Not determined Other: Not determined

Partition Coefficient (n-octanol / water): Not applicable

Coefficient of Water / Oil: Not applicable

Melting Point: Not applicable

Decomposition Temperature: Not determined

Page 4 Date Printed 2/3/16 MSDS No: M02684

Boiling Point: Not determined **Vapor Pressure:** Not determined

Vapor Density (air = 1): Not determined Evaporation Rate (water = 1): Not determined

Volatile Organic Compounds Content: Not applicable

Elawarahla Dron ortiga. Matarial will not have

Flammable Properties: Material will not burn.

Flash Point: Not applicable Method: Not applicable Flammability Limits:

Lower Explosion Limits: Not applicable Upper Explosion Limits: Not applicable Autoignition Temperature: Not applicable

Explosive Properties:

Not classified according to GHS criteria.

Oxidizing Properties:

Not classified according to GHS criteria.

Reactivity Properties:

Not classifed as self-reactive, pyrophoric, self-heating or emitting flammable gases in contact with water according to GHS

criteria.

Gas under Pressure:

Not classified according to GHS criteria.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Mechanical Impact: None reported *Static Discharge:* None reported.

Reactivity / Incompatibility: None reported Hazardous Decomposition: None reported Conditions to Avoid: Heat Evaporation

11. TOXICOLOGICAL INFORMATION

Toxicokinetics, Metabolism and Distribution: No health effects are anitcipated in normal use.

Toxicologically Synergistic Products: None reported

Acute Toxicity: Based on classification principles, the classification criteria are not met. Acute Toxicity Estimate (ATE) - Calculated from Ingredient Toxicity Data

ATE Oral LD50 = 418568 mg/kg ATE Inhalation 3333.3 mg/L/4 hr

Specific Target Organ Toxicity - Single Exposure (STOT-SE): Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity - Repeat Exposure (STOT-RE): Based on classification principles, the classification criteria are not met.

Skin Corrosion/Irritation: Based on classification principles, the classification criteria are not met.

Eye Damage: Based on classification principles, the classification criteria are not met. Sensitization: Based on classification principles, the classification criteria are not met.

CMR Effects/Properties (carcinogenic, mutagenic or toxic to reproduction): Based on classification principles, the classification criteria are not met.

This product does NOT contain any IARC listed chemicals.

This product does NOT contain any NTP listed chemicals.

This product does NOT contain any OSHA listed carcinogens.

Symptoms/Effects:

Ingestion: Very large doses may cause: nausea

Inhalation: No effects anticipated Skin Absorption: No effects anticipated Chronic Effects: No effects anticipated Medical Conditions Aggravated: None reported

Page 5 Date Printed 2/3/16 MSDS No: M02684

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product.

Ingredient Ecological Information: --

No ecological data available for the ingredients of this product.

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: Not applicable

Special Instructions (Disposal): If permitted by regulation, Open cold water tap completely, slowly pour the material to the drain. Flush system with plenty of water. Otherwise, Dispose of material in an E.P.A. approved hazardous waste facility.

Empty Containers: Rinse three times with an appropriate solvent. Collect rinsate and dispose of according to local, state or federal regulations. Dispose of empty container as normal trash. In the US, rinsate from empty containers is classified as hazardous waste and should be disposed of at an E.P. A. approved facility. Rinsate from empty containers may contain sufficient product to require disposal as hazardous waste.

NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information. In Europe: Chemical and analysis solutions must be disposed of in compliance with the respective national regulations. Product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

14. TRANSPORT INFORMATION

D.O.T.:

D.O.T. Proper Shipping Name: Not Currently Regulated

--

Hazard Class: NA Subsidiary Risk: NA ID Number: NA Packing Group: NA

T.D.G.:

Proper Shipping Name: Not Currently Regulated

--

Hazard Class: NA Subsidiary Risk: NA UN Number/PIN: NA Packing Group: NA

I.C.A.O..

I.C.A.O. Proper Shipping Name: Not Currently Regulated

Hazard Class: NA Subsidiary Risk: NA ID Number: NA Packing Group: NA

I.M.O.:

Proper Shipping Name: Not Currently Regulated

Hazard Class: NA Subsidiary Risk: NA ID Number: NA Packing Group: NA Marine Pollutant:

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 set or kit, the classification given above applies. If the item

Page 6 Date Printed 2/3/16 MSDS No: M02684

IS part of a set or kit, the classification would change to the following: UN3316 Chemical Kit, Class 9, PG II or III. If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

U.S. Federal Regulations:

O.S.H.A.: This product does not meet the criteria for a hazardous substance as defined in the Hazard Communication Standard. (29 CFR 1910.1200)

E.P.A.:

S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370): This product is not hazardous under 29 CFR.1910.1200 and therefore is not covered by Title III under SARA.

S.A.R.A. Title III Section 313 (40 CFR 372): This product contains a chemical(s) subject to the reporting requirements of Section 313 of Title III of SARA.

--

302 (EHS) TPQ (40 CFR 355): Not applicable

304 CERCLA RQ (40 CFR 302.4): Ammonium chloride: 5000 lbs.

304 EHS RQ (40 CFR 355): Not applicable

Clean Water Act (40 CFR 116.4): Ammonium chloride - RQ 5000 lbs.

RCRA: Contains no RCRA regulated substances.

State Regulations:

California Prop. 65: No Prop. 65 listed chemicals are present in this product.

Identification of Prop. 65 Ingredient(s): None

California Perchlorate Rule CCR Title 22 Chap 33: Not applicable

Trade Secret Registry: Not applicable

National Inventories:

U.S. Inventory Status: All ingredients in this product are listed on the TSCA 8(b) Inventory (40 CFR 710).

CAS Number: Not applicable

Canadian Inventory Status: All ingredients of this product are DSL Listed.

EEC Inventory Status: All ingredients used to make this product are listed on EINECS / ELINCS.

Australian Inventory (AICS) Status: Some ingredients are not listed.

New Zealand Inventory (NZIoC) Status: All components either listed or exempt.

Korean Inventory (KECI) Status: All components of this product are either listed, listed as the anhydrous compound or exempt.

Japan (ENCS) Inventory Status: All components either listed or exempt.

China (PRC) Inventory (MEP) Status: All components either listed or exempt.

16. OTHER INFORMATION

References: 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Technical Judgment. In-house information. Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Association, 1991. Complete Text of H phrases referred to in Section 3: H272 May intensify fire; oxidiser. H300 Fatal if swallowed. H302 Harmful if swallowed. H311 Toxic in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H330 Fatal if inhaled. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H401 Toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.

Revision Summary: New SDS Substantial revision to comply with EU Reg 1272/2008, Reg 1907/2006 and UN GHS (ST/SG/AC.10/36/Add.3).

Date of MSDS Preparation:

Day: 22
Month: Octo

Month: October *Year:* 2014

MSDS Prepared: MSDS prepared by Product Compliance Department extension 3350

CCOHS Evaluation Note: It is offered under exemption from WHMIS labeling as specified in the Controlled Products Regulation (CPR) Section 17. It is offered under the interim policy that was established by Health Canada permitting use of GHS-formatted safety data sheets in Canada prior to revision of CPR to GHS. This product has been classified and

Page 7 Date Printed 2/3/16 MSDS No: M02684

labeled in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3). This SDS has been prepared in accordance with the requirements of GHS (ST/SG/AC.10/36/Add.3).

Legend:

NA - Not Applicable w/w - weight/weight
ND - Not Determined w/v - weight/volume
NV - Not Available v/v - volume/volume

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.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

HACH COMPANY ©2016