

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

MSDS No: M00386

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Amino Acid F Reagent Solution
Catalog Number: 2386442

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

Emergency Telephone Numbers:
(Medical and Transportation)
(303) 623-5716 24 Hour Service
(515)232-2533 8am - 4pm CST

MSDS Number: M00386
Chemical Name: Not applicable
CAS Number: Not applicable
Additional CAS No. (for hydrated forms): Not applicable
Chemical Formula: Not applicable
Chemical Family: Mixture
Intended Use: Silica determination

2. HAZARDS IDENTIFICATION

GHS Classification:

Hazard categories: . Skin Corrosion/Irritation: Skin Irrit. 2 Serious Eye Damage/Eye Irritation: Eye Dam. 1
Respiratory or Skin Sensitization: Resp. Sens.1

GHS Label Elements:

DANGER



Hazard statements: . Causes skin irritation. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements: Wear protective gloves / protective clothing / eye protection / face protection. 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: Wash with plenty of soap and water. IF INHALED: Remove victim/person to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

HMIS:

Health: 2

Flammability: 1

Reactivity: 0

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

NFPA:

Health: 2

Flammability: 1

Reactivity: 0

Symbol: Not applicable

WHMIS Hazard Classification: Class D, Division 2, Subdivision B - Toxic material (other toxic effects)

WHMIS Symbols: Other Toxic Effects

3. COMPOSITION / INFORMATION ON INGREDIENTS

The following list contains the Material Safety Data Sheets you requested. Please scroll down to view the requested MSDS(s).

<u>Product</u>	<u>MSDS</u>	<u>Distributor</u>	<u>Format</u>	<u>Language</u>	<u>Quantity</u>
2386442	N/A	Hach Company	ROWGHS	English	1

Total Enclosures: 1

Hazardous Components according to GHS:

Aminomethylpropanol

CAS Number: 124-68-5

Chemical Formula: C₄H₁₁NO

GHS Classification: Flam. Liq. 4, H227; Acute Tox. 5 -Orl, H303; Acute Tox. 5 -Derm, H313; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Chronic 3, H412

Percent Range (Trade Secret): 5.0 - 10.0

Percent Range Units: weight / weight

PEL: Not established

TLV: Not established

WHMIS Symbols: Corrosive/Flammable / Combustible

Sodium Metabisulfite

CAS Number: 7681-57-4

Chemical Formula: Na₂S₂O₅

GHS Classification: Acute Tox. Orl 4, H302; Acute Tox. Derm 5, H313; Acute Tox. Inh. 4, H332; Skin Irrit. 2, H315; Eye Dam. 1, H318; Resp. Sens. 1, H334; Aquatic Chronic 3, H412

Percent Range (Trade Secret): 5.0 - 10.0

Percent Range Units: weight / weight

PEL: 15 mg/m³ as inhalable dust; 5 mg/m³ as respirable dust

TLV: 5 mg/m³

WHMIS Symbols: Other Toxic Effects

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): 80.0 - 90.0

Percent Range Units: weight / weight

PEL: Not established

TLV: Not established

WHMIS Symbols: Not applicable

Fast Amino Acid (Trade Secret)

CAS Number: Confidential

Chemical Formula: Confidential.

GHS Classification: Acute Tox. Orl. 5, H303

Percent Range (Trade Secret): < 1.0

Percent Range Units: weight / weight

PEL: Handle as a nuisance dust.

TLV: Handle as a nuisance dust.

HMIRA Registry Number 9093 Filed: 2013/12/23

WHMIS Symbols: Other Toxic Effects

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: Immediately flush eyes with water for 15 minutes. Call physician immediately.

Skin Contact (First Aid): Wash skin with plenty of water. Call physician if irritation develops. Remove contaminated clothing.

Inhalation: Remove to fresh air. Give artificial respiration if necessary. Call physician.

Ingestion (First Aid): Never give anything by mouth to an unconscious person. Rinse mouth with plenty of water. Give large quantities of water. If you feel unwell, contact a physician. If concerned contact a physician.

5. FIRE FIGHTING MEASURES

Flammable Properties: Material is not classified as flammable according to GHS criteria. Can burn in fire, releasing toxic vapors.

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

Extinguishing Media: Use media appropriate to surrounding fire conditions

Extinguishing Media NOT To Be Used: Not applicable

Fire / Explosion Hazards: May react violently with: strong oxidizers strong acids strong bases

Hazardous Combustion Products: Toxic fumes of: sulfur oxides. carbon monoxide, carbon dioxide. sodium oxides

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: Stop spilled material from being released to the environment. Absorb spilled liquid with non-reactive sorbent material. Releases of this material may contaminate the environment.

Clean-up Technique: Wear appropriate protective equipment as defined by MSDS. Avoid breathing spilled material. Avoid contact with spilled material. Absorb spilled liquid with non-reactive sorbent material. Sweep up material. Place material in a plastic bag. Decontaminate the area of the spill with a soap solution. Pick up spill for disposal and place in a closed container. Dispose of in accordance with local, state and federal regulations or laws.

Evacuation Procedure: Evacuate local area (15 foot radius or as directed by your facility's emergency response plan) when: a gallon or more of liquid is spilled. 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 skin clothing. Use with adequate ventilation. Do not breathe mist or vapors. Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.

Storage: Keep this product in its original container when not in use. Keep container tightly closed when not in use. Store in a cool, dry, well-ventilated place. Protect from: heat light. Keep away from: oxidizers acids / acid fumes. bases

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: chemical splash goggles

Skin Protection: nitrile gloves lab coat

Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes skin clothing. Use with adequate ventilation. Do not breathe: mist/vapor. Wash thoroughly after handling. Protect from: light heat. Keep away from: oxidizers acids/acid fumes bases

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: Yellow to Brown Liquid

Physical State: Liquid

Molecular Weight: Not applicable

Odor: Sweet, pungent

Odor Threshold: Not determined

pH: 7.4

Metal Corrosivity:

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

Steel: 0.043 inch/yr

Aluminum: 0.002 in/yr
Specific Gravity/ Relative Density (water = 1; air =1): 1.115
Viscosity: Not determined
Solubility:
Water: Miscible
Acid: Miscible
Other: Not determined
Partition Coefficient (n-octanol / water): Not applicable
Coefficient of Water / Oil: Not applicable
Melting Point: -7 °C (19 °F)
Decomposition Temperature: Not determined
Boiling Point: 99 °C (210 °F)
Vapor Pressure: ~ 17 mm Hg (2.3 kPa) at 20 °C (68 °F)
Vapor Density (air = 1): ~ 0.6
Evaporation Rate (water = 1): 0.84
Volatile Organic Compounds Content: Not available
Flammable Properties: Material is not classified as flammable according to GHS criteria. Can burn in fire, releasing toxic vapors.
Flash Point: > 93.3 °C (> 200 °F)
Method: Closed cup
Flammability Limits:
Lower Explosion Limits: Not available
Upper Explosion Limits: Not available
Autoignition Temperature: Not available
Explosive Properties:
Not classified according to GHS criteria.
Oxidizing Properties:
Not classified according to GHS criteria.
Reactivity Properties:
Not classified 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: May react violently in contact with: strong acids strong bases strong oxidizers
Hazardous Decomposition: Heating to decomposition releases toxic and/or corrosive fumes of: sulfur oxides carbon dioxide carbon monoxide
Conditions to Avoid: Exposure to light. Extreme temperatures Contact with acid or acid fumes Contact with oxidizers Incompatibles Poor Ventilation

11. TOXICOLOGICAL INFORMATION

Toxicokinetics, Metabolism and Distribution: No information available for mixture.
Toxicologically Synergistic Products: None reported
Acute Toxicity: Acute Toxicity Estimate (ATE) - Calculated from Ingredient Toxicity Data Based on classification principles, the classification criteria are not met. Route Data Given Below
Oral Rat LD50 = 4423 mg/kg
Dermal Rat/Rabbit LD50 = 10770 mg/kg
Inhalation Rat LC50 = 21 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. Summary of findings reported in the literature follow.
Sodium Metabisulfite: Oral Rat TDLo = 75 mg/kg/15 days/Phosphatases, dehydrogenases; Oral Rat TDLo = 1056 mg/kg/6 wk/Alteration of classical conditioning, metabolism: lipids including transport, retinal changes pigmentary deposition, retinitis.

Skin Corrosion/Irritation: Irritating to skin.

Eye Damage: Corrosive to eyes.

Sensitization: Respiratory Sensitizer Contains a sensitizing compound. Testing data given below.

Sodium Metabisulfite: Mild exposure may cause dyspnea, pleuritic chest pain, cough and bronchospasm. Pulmonary dysfunction similar to asthma has been reported. Can trigger bronchoconstriction in asthma patients.

CMR Effects/Properties (carcinogenic, mutagenic or toxic to reproduction): Based on classification principles, the classification criteria are not met. Summary of findings reported in the literature follow.

Sodium Metabisulfite: Cytogenetic Analysis - Hamster Ovary - 0.180 mg/L; Mutation in Microorganisms - Salmonella typhimurium - 100 mmol/L; Sister-Chromatid Exchange - Hamster Ovary - 0.200 mg/L

Sodium Metabisulfite: Oral Rat TDLo = 20 g/kg/Stillbirth; Oral Rat TDLo = 40 g/kg/Weaning or lactation index; Rabbit LOAEL = 123 mg/kg/13 days/Delayed ossification, gross skeletal abnormalities, pup mortality increase

An ingredient of this mixture is: IARC Group 3: Non-classifiable

Metabisulfites

This product does NOT contain any NTP listed chemicals.

This product does NOT contain any OSHA listed carcinogens.

Symptoms/Effects:

Ingestion: May be harmful if swallowed May cause: abdominal pain allergic respiratory reaction diarrhea liver damage Very large doses may cause: central nervous system depression circulatory disturbances

Inhalation: May cause: allergic respiratory reaction headache nausea vomiting

Skin Absorption: Will be absorbed through the skin. No effects anticipated

Chronic Effects: Chronic overexposure may cause allergic respiratory reactions

Medical Conditions Aggravated: Sulfites are strong sensitizers. Inhalation and ingestion may cause allergic respiratory reactions in asthmatics. Persons with respiratory conditions should take special care when working with products that contain sulfites.

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product. Based on classification principles, not classified as hazardous to the environment. No bioaccumulation potential Mobility in soil: Highly mobile

Method Used for Estimation of Aquatic Toxicity of Mixture Summation Method M-factor (Multiplier) for highly toxic ingredients: 1

Ingredient Ecological Information: Sodium metabisulfite: Salmo gairdneri 96 hr LC50 = 15-220 mg/L; Daphnia magna 24 hr EC50 = 89 mg/L; Scenedesmus subspicatus 96 hr EC50 = 40 mg/L; LC50 96 hr Lepomis macrochirus = 32 mg/L; LC50 96 hr fish > 12.5 mg/L; LC50 96 hr rainbow trout = 150 mg/L;

Aminomethylpropanol: Pleuronectes platessa 96 hr LC50 = 184 mg/L; Daphnia magna 48 hr EC50 = 193 mg/L; Daphnia magna 24 hr EC50 = 65 mg/L; Scenedesmus subspicatus 72 hr EC50 = ca. 520 mg/L.

CEPA Categorization: Sodium Metabisulfite: Persistent, Not inherently toxic to aquatic organisms, Not Bioaccumulative.

CEPA Categorization: Aminomethylpropanol: Not Persistent or Bioaccumulative. Not inherently toxic to aquatic organisms.

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. Allow cold water to run for 5 minutes to completely flush the system. Otherwise, Check with local municipal and state authorities and waste contractors for pertinent local information regarding the proper disposal of chemicals.

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

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

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

T.D.G.:

Proper Shipping Name: Not Currently Regulated

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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

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

I.M.O.:

Proper Shipping Name: Not Currently Regulated

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

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 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 meets 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): Immediate (Acute) Health Hazard

S.A.R.A. Title III Section 313 (40 CFR 372): This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.

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302 (EHS) TPQ (40 CFR 355): Not applicable
304 CERCLA RQ (40 CFR 302.4): Not applicable
304 EHS RQ (40 CFR 355): Not applicable
Clean Water Act (40 CFR 116.4): Not applicable
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: New Jersey Trade Secret Registry Number 80100131-5000 (Amino Acid F) New York Trade Secret Registry Number 477 (Amino Acid F) This product complies with Pennsylvania Trade Secret Regulations. This product is registered as a trade secret in the state of Illinois. This product is registered as a trade secret in the state of New York. This product is registered as a trade secret in the state of Massachusetts.

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. Annual Report Required.

New Zealand Inventory (NZIoC) Status: Not Listed - 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. In-house information. Outside Testing. Sax, N. Irving. Dangerous Properties of Industrial Materials, 7th Ed. New York: Van Nostrand Reinhold Co., 1989. Gosselin, R. E. et al. Clinical Toxicology of Commercial Products, 5th Ed. Baltimore: The Williams and Wilkins Co., 1984. Technical Judgment.

Complete Text of H phrases referred to in Section 3: H302 Harmful if swallowed. Not applicable H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Revision Summary: . 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: 06

Month: March

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 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

ND - Not Determined

NV - Not Available

w/w - weight/weight

w/v - weight/volume

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.

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