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MSDS No: M00605

## SAFETY DATA SHEET

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

**Product Name:** Amino Acid F Reagent Powder for Analyzers  
**Catalog Number:** 2651155

HACH LANGE GmbH  
Willstätterstrasse 11  
40549 Düsseldorf, Germany  
+49 -(0)211 -52880

Emergency Telephone Numbers:  
(Poison Information Center Main)  
(+49 (0) 6131 19240) 24 HR

**SDS Number:** M00605  
**Chemical Name:** Not applicable  
**Chemical Formula:** Not applicable  
**Chemical Family:** Not applicable  
**Use of the substance/preparation:** Indicator for silica  
**CAS No.:** Not applicable  
**Hazard:** Allergen May cause irritation.  
**Date of MSDS Preparation:**  
**Day:** 06  
**Month:** July  
**Year:** 2007  
**Additional Emergency Response Numbers:** Austria: +49 (0)6131 19240, Belgium: +32 -(0)70 -245245,  
France: +33 -(0)1 -40370404, Italy: +39 -02-66101029, Netherlands: +31 -(0)30 -2748888, Switzerland: +41 -  
(0)1 -251515 1

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

#### Fast Amino Acid (Trade Secret)

**EEC Number:** Confidential  
**CAS No.:** Confidential  
**Percent Range:** 5,0 - 10,0  
**Percent Range Units :** weight / weight  
**Ingredient EEC Symbol:** Not applicable  
**Ingredient R phrase(s) (R phrase details given in Heading 16):** Not applicable  
**TLV:** Handle as a nuisance dust.  
**PEL:** Handle as a nuisance dust.  
**EU Occupational Exposure Limits:** 3 mg/m<sup>3</sup>, Inhalable dust

#### Sodium Metabisulfite

**EEC Number:** 2316730  
**CAS No.:** 7681 -57 -4  
**Percent Range:** 90,0 - 100,0  
**Percent Range Units:** weight / weight  
**Ingredient EEC Symbol:** Xn - HARMFUL  
**Ingredient R phrase(s) (R phrase details given in Heading 16):** R 22 R 31 R 41  
**TLV:** 5 mg/m<sup>3</sup> (ACGIH - TWA)

**PEL:** Not established

**EU Occupational Exposure Limits:** 3 mg/m<sup>3</sup>, Inhalable dust

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### 3. HAZARDS IDENTIFICATION

**Emergency Overview :**

**Appearance:** White to tan powder or crystals

**Odor:** None

**EU Symbols:** Xn - HARMFUL

**R PHRASES:** R 22: Harmful if swallowed. R 31: Contact with acids liberates toxic gas. R 41: Risk of serious damage to eyes.

**Protective Equipment:**

**Potential Health Effects:**

**Eye Contact (EC):** Causes irritation

**Skin Contact (EC):** Causes irritation

**Skin Absorption (EC):** None Reported

**Target Organs (SA E):** None Reported

**Ingestion (EC):** Causes: irritation of the mouth and esophagus May cause allergic respiratory reaction if swallowed or inhaled. May cause: abdominal pain diarrhea vomiting headache central nervous system depression

**Target Organs (Ing E):** Central nervous system Gastrointestinal tract

**Inhalation:** Causes: irritation of nose and throat May cause: allergic respiratory reaction

**Target Organs (Inh E):** None Reported

**Medical Conditions Aggravated:** Pre-existing: Eye conditions Skin conditions Respiratory conditions 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.

**Chronic Effects:** Chronic overexposure may cause allergic respiratory reactions respiratory tract damage Chronic ingestion of sodium metabisulfite caused anemia and reduced body weight gain in experimental animals.

**Cancer / Reproductive Toxicity Information:**

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

**Additional Cancer / Reproductive Toxicity Information:** Sodium metabisulfite has shown positive results in screening tests for mutagenicity.

**Toxicologically Synergistic Products:** None reported

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### 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush eyes with water for 15 minutes. Call physician.

**Skin Contact (First Aid):** Wash skin with soap and plenty of water for 15 minutes. Call physician immediately.

**Ingestion (First Aid):** Do not induce vomiting. Give 1-2 glasses of water under medical supervision. Call physician immediately. Never give anything by mouth to an unconscious person.

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

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### 5. FIRE FIGHTING MEASURES

**Flammable Properties:** During a fire, this product decomposes to form toxic gases.

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

**Fire / Explosion Hazards:** May react violently with: strong oxidizers

**Static Discharge:** None reported.

**Mechanical Impact:** None reported  
**Extinguishing Media:** Carbon dioxide Dry chemical. Alcohol foam.  
**Extinguishing Media NOT To Be Used:** Not applicable Not applicable Not applicable  
**Fire Fighting Instruction:** As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

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## 6. ACCIDENTAL RELEASE MEASURES

### **Spill Response Notice:**

Only persons properly qualified to respond to an emergency involving hazardous substances should respond to a spill involving chemicals. See Section 13, Special Instructions for disposal assistance.

**Containment Technique:** Stop spilled material from being released to the environment. Cover spilled solid material with sand or other inert material.

**Clean-up Technique:** Scoop up spilled material into a large beaker and dissolve with water. Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Filter to remove solids. Flush reacted material to the drain with a large excess of water.

**Evacuation Procedure:** Evacuate local area (15 foot radius or as directed by your facility's emergency response plan) when: a pound or more of loose powder is spilled. If conditions warrant, increase the size of the evacuation.

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## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes skin clothing Do not breathe dust. Wash thoroughly after handling.

**Storage:** Protect from: moisture oxidizers acids / acid fumes.

**Special Packaging Instructions:** Not applicable

**Use of the substance/ preparation:** Indicator for silica

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## 8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

**Engineering Controls:** Have an eyewash station nearby. Use general ventilation to minimize exposure to mist, vapor or dust. Maintain general industrial hygiene practices when using this product.

### **Personal Protective Equipment:**

**Eye Protection:** safety glasses with top and side shields

**Skin / Hand Protection:** disposable latex gloves lab coat

**Inhalation Protection:** adequate ventilation

**Precautionary Measures:** Avoid contact with: eyes skin clothing Do not breathe: dust Wash thoroughly after handling. Protect from: oxidizers acids/acid fumes

**TLV:** Not established

**PEL:** Not established

**EU Occupational Exposure Limits:** 3 mg/m<sup>3</sup>, Inhalable dust

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## 9. PHYSICAL / CHEMICAL PROPERTIES

**Appearance:** White to tan powder or crystals

**Physical State:** Solid

**Odor:** None

**pH:** 5% solution = 4,5

**Vapor Pressure:** Not applicable

**Vapor Density (air = 1):** Not applicable

**Boiling Point:** Not applicable

**Melting Point:** Decomposes

**Flash Point:** Not applicable

**Method:** Not applicable

**Autoignition Temperature:** Not determined

**Flammability Limits:**

**Lower Explosion Limits:** Not applicable

**Upper Explosion Limits:** Not applicable

**Specific Gravity (water = 1):** 2,261

**Evaporation Rate (water = 1):** Not applicable

**Volatile Organic Compounds Content:** Not applicable

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

**Solubility:**

**Water:** Partially soluble

**Acid:** Soluble HCl, H<sub>2</sub>SO<sub>4</sub>

**Other:** Soluble in NaOH

**Metal Corrosivity:**

**Steel:** 0,0626 in/yr

**Aluminum:** 0,0002 in/yr

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## 10. STABILITY / REACTIVITY

**Chemical Stability:** Stable when stored under proper conditions.

**Conditions to Avoid:** Heating to decomposition. Excess moisture

**Reactivity / Incompatibility:** May react violently in contact with: acids oxidizers

**Hazardous Decomposition:** Toxic fumes of: carbon monoxide carbon dioxide sulfur oxides

**Hazardous Polymerization:** Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

**Product Toxicological Data:**

**LD50:** Oral rat LD<sub>50</sub> = 1100 mg/kg.

**LC50:** None reported

**Dermal Toxicity Data:** None reported

**Skin and Eye Irritation Data:** None reported

**Mutation Data:** Sodium metabisulfite has shown positive results in screening tests for mutagenicity.

Cytogenic analysis hamster ovary 180 µg/L; Sister chromatid exchange on hamster ovary at 200 µg/L

**Reproductive Effects Data:** Sodium metabisulfite: Oral rat TD<sub>Lo</sub> 20 g/Kg Effects on newborn - stillbirth;

Oral rat TD<sub>Lo</sub> 40 g/Kg Effects on newborn - weaning or lactation index

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**Ingredient Toxicological Data:** Amino Acid F: Oral rat LD<sub>50</sub> >2000 mg/Kg; Sodium metabisulfite: Oral rat LD<sub>50</sub> = 1131 mg/kg

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

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## 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.

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## 13. DISPOSAL CONSIDERATIONS

**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 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.

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## 14. TRANSPORT INFORMATION

### **I.C.A.O.:**

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

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**ICAO Hazard Class:** NA

**ICAO Subsidiary Risk:** NA

**ICAO UN/ID Number:** NA

**ICAO Packing Group :** NA

### **I.M.O.:**

**I.M.O. Proper Shipping Name:** Not Currently Regulated

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**I.M.O. Hazard Class:** NA

**I.M.O. Subsidiary Risk:** NA

**I.M.O. UN Number:** NA

**I.M.O. Packing Group:** NA

### **A.D.R.:**

**A.D.R. Proper Shipping Name:** Not Currently Regulated

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**A.D.R Hazard Class:** NA

**A.D.R. Subsidiary Risk:** NA

**A.D.R. UN -Number::** NA

**A.D.R. Packing Group:** NA

**Additional Information:** This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping Name: Chemical Kit Hazard Class: 9 UN Number 3316

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## 15. REGULATORY INFORMATION

### **National Inventories:**

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

**EEC Number:** Not applicable

### **EEC LABEL COPY:**

**EU Symbols:** Xn - HARMFUL

**R PHRASES:** R 22: Harmful if swallowed. R 31: Contact with acids liberates toxic gas. R 41: Risk of serious damage to eyes.

**S PHRASES:** S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 39: Wear eye / face protection. S 46: If swallowed, seek medical advice immediately and show this container or label.

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## 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. Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Association, 1991. In-house information. The Merck Index, 11th Ed. Rahway, New Jersey: Merck and Co., Inc., 1989. Technical Judgment. Sax, N. Irving. Dangerous Properties of Industrial Materials, 7th Ed. New York: Van Nostrand Reinhold Co., 1989. Vendor Information. Hui, JY et al, "Comparative subchronic oral toxicity of sulfite and acetaldehyde hydroxysulfonate in rats", Food Cosmet. Toxicol., 27(6), pp. 349 -59, 1989. Pekhov, AP and Reshetnikova, VN, "Test Strains of E.coli for the detection of chemical mutagens:", Bull. Exp. Bio. Med. (USSR), 4, pp. 1043 -5, 1977. Subba Rao, V and Aiyar, AS, "Mutagenicity evaluation studies with food additives and radiolytic products", Proc. Symp. Muta. Carc.

Tera. Chem., pp. 104 -14, 1975. Til, HP, Fer on, VJ and de Groot, AP, "The toxicity of sulphite. I. Long -term feeding and multigeneration studies in rats", Food Cosmet. Toxicol., 10, pp 291 -310, 1972.

**R PHRASES:** R 22: Harmful if swallowed. R 31: Contact with acids liberates toxic gas. R 41: Risk of serious damage to eyes.

**Use of the substance/preparation:** Indicator for silica

**Revision Summary:** Updates in Section(s) 1,

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**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 T                   HEREOF.**

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