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

Product	MSDS	Distributor	Format	Language	Quantity
1456134	N/A	Hach Company	OSHA	English	1

Total Enclosures: 1

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

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Sulfanilamide **Catalog Number:** 1456134

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

MSDS Number: M01185

Chemical Name: 4-Aminobenzenesulfonamide

CAS No.: 63-74-1

Chemical Formula: C₆H₈N₂O₂S Chemical Family: Organic Amide Hazard: May cause irritation. Date of MSDS Preparation:

Day: 14

Month: December *Year:* 2007

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

MSDS No: M01185

2. COMPOSITION / INFORMATION ON INGREDIENTS

Sulfanilamide

CAS No.: 63-74-1

TSCA CAS Number: 63-74-1

Percent Range: >98

Percent Range Units: weight / weight **LD50:** Oral rat LD50 = 3900 mg/kg

LC50: None reportedTLV: Not establishedPEL: Not establishedHazard: May cause irritation.

Impurities

CAS No.: Not applicable

TSCA CAS Number: Not applicable

Percent Range: <2

Percent Range Units: weight / weight

LD50: None reported. LC50: None reported. TLV: Not established. PEL: Not established. Hazard: Not applicable

3. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance: White crystals

Odor: None

MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION

HMIS:

Health: 1 Flammability: 1 Reactivity: 0

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

NFPA:

Health: 1 Flammability: 1 Reactivity: 0

Symbol: Not applicable Potential Health Effects:

Eye Contact: May cause irritiation Skin Contact: May cause irritiation

Skin Absorption: May be absorbed through skin.

Target Organs: Blood

Ingestion: May cause: nausea vomiting fever cyanosis (a reduction of the blood's ability to carry oxygen, giving a bluish discoloration) dizziness blood changes

Target Organs: Blood

Inhalation: May cause: respiratory tract irritation cyanosis (a reduction of the blood's ability to carry oxygen, giving a bluish discoloration)

Target Organs: Blood

Medical Conditions Aggravated: Pre-existing: Respiratory conditions blood disorders Cardiovascular

diseases

Chronic Effects: Chronic overexposure may cause adverse effects to the blood

Cancer / Reproductive Toxicity Information:

O.S.H.A. Listed: No

IARC Listed: No

NTP Listed: No

Additional Cancer / Reproductive Toxicity Information: Contains: an experimental carcinogen. an experimental mutagen. an experimental teratogen.

Toxicologically Synergistic Products: None reported

4. FIRST AID

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

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

Ingestion (First Aid): Give large quantities of water. Call physician immediately.

Inhalation: Remove to fresh air.

5. FIRE FIGHTING MEASURES

Flammable Properties: Can burn in fire, releasing toxic vapors.

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

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

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

dioxide.

Fire / Explosion Hazards: None reportedStatic Discharge: None reported.Mechanical Impact: None reported

Extinguishing Media: Use media appropriate to surrounding fire conditions

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.

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. Releases of this

material may contaminate the environment.

Clean-up Technique: Sweep up material. Incinerate material at an E.P.A. approved hazardous waste facility. Decontaminate the area of the spill with a soap solution.

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.

Special Instructions (for accidental release): Not applicable

304 EHS RQ (40 CFR 355): Not applicable

D.O.T. Emergency Response Guide Number: Not applicable

7. HANDLING / STORAGE

Handling: Avoid contact with eyes skin Do not breathe dust. Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.

Storage: Protect from: heat light Keep away from: acids oxidizers

Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Have an eyewash station nearby. 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 **Inhalation Protection:** adequate ventilation

Precautionary Measures: Protect from: heat light Keep away from: acids/acid fumes oxidizers Avoid

contact with: eyes skin Do not breathe: dust Wash thoroughly after handling.

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

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: White crystals Physical State: Solid Molecular Weight: 172.21 Odor: None

pH: 0.5% solution = 5.8-6.1Vapor Pressure: Not applicable

Vapor Density (air = 1): Not applicable

Boiling Point: Not available **Melting Point:** 166°C; 331°F **Specific Gravity (water = 1):** 1.08

Evaporation Rate (water = 1): Not applicable

Volatile Organic Compounds Content: Not available

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

Solubility:

Water: 7.5 g/l @ 25°C

Acid: Soluble

Other: Acetone, Alcohol, Propylene Glycol

Metal Corrosivity:
Steel: Not determined
Aluminum: Not determined

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Conditions to Avoid: Avoid creating dust. Exposure to direct sunlight. Heat **Reactivity / Incompatibility:** Incompatible with: strong acids oxidizers

Hazardous Decomposition: Heating to decomposition releases toxic and/or corrosive fumes of: nitrogen

oxides carbon dioxide carbon monoxide sulfur oxides

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data:

LD50: Oral rat LD50 = 3900 mg/kg

LC50: None reported

Dermal Toxicity Data: None reported Skin and Eye Irritation Data: None reported

Mutation Data: DNA damage - rat - liver - 30 µmol/l

Reproductive Effects Data: Unreported route - female human (34-37 weeks after conception) - TDLo = 934

mg/kg - Specific developmental abnormalities - blood and lympathic systems

Ingredient Toxicological Data: --

Not applicable

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product.

Ingredient Ecological Information: --

Not applicable

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: None

Special Instructions (Disposal): Incinerate material at an E.P.A. approved hazardous waste facility. *Empty Containers:* Rinse three times with an appropriate solvent. 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.

14. TRANSPORT INFORMATION

```
D.O.T.:
 D.O.T. Proper Shipping Name: Not Currently Regulated
 DOT Hazard Class: NA
 DOT Subsidiary Risk: NA
 DOT ID Number: NA
 DOT Packing Group: NA
I.C.A.O.:
 I.C.A.O. Proper Shipping Name: Not Currently Regulated
 ICAO Hazard Class: NA
 ICAO Subsidiary Risk: NA
 ICAO ID Number: NA
  ICAO Packing Group: NA
  I.M.O. Proper Shipping Name: Not Currently Regulated
 I.M.O. Hazard Class: NA
 I.M.O. Subsidiary Risk: NA
 I.M.O. ID Number: NA
 I.M.O. 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

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U.S. Federal Regulations:
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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 Delayed (Chronic) 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.

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.

C.P.S.C.: Not applicable

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:

Trade Secret Registry: Not applicable

National Inventories:

U.S. Inventory Status: TSCA Listed: Yes

TSCA CAS Number: 63-74-1

16. OTHER INFORMATION

Intended Use: Laboratory Reagent

References: 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. The Merck Index, 11th Ed. Rahway, New Jersey: Merck and Co., Inc., 1989. Sax, N. Irving. Dangerous Properties of Industrial Materials, 7th Ed. New York: Van Nostrand Reinhold Co., 1989. NIOSH Registry of Toxic Effects of Chemical Substances, 1985-86. Cincinnati: U.S. Department of Health and Human Services, April, 1987. Vendor Information. Technical Judgment.

Revision Summary: Updates in Section(s) 14,

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.

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