

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>
2212129	N/A	Hach Company	EEC	English	1

Total Enclosures: 1

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

MSDS No: M00380

SAFETY DATA SHEET

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

Product Name: Mercuric Thiocyanate Solution
Catalog Number: 2212129

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: M00380

Chemical Name: Not applicable

Chemical Formula: Not applicable

Chemical Family: Not applicable

Use of the substance/preparation: Determination of chloride

CAS No.: Not applicable

Hazard: Toxic. Cumulative poison. Flammable. Cannot be made non-toxic. Experimental teratogen.

Date of MSDS Preparation:

Day: 12

Month: 01

Year: 2006

Additional Emergency Response Numbers: Austria: +49 (0)6131 19240, Belgium: +32-(0)70-245245, France: +33 (0)1-40370404, Italy: +39-0266101029, Netherlands: +31 -(0)30-2748888, Switzerland: +41-(0)1-2515151

2. COMPOSITION / INFORMATION ON INGREDIENTS

Mercuric Thiocyanate

EEC Number: 2097730

CAS No.: 592-85-8 Contains Mercury, Dispose Per Local, State or Federal Laws

Percent Range: < 0,5

Percent Range Units: weight / weight

Ingredient EEC Symbol: Not applicable

Ingredient R phrase(s) (R phrase details given in Heading 16): Not applicable

TLV: 0,1 mg(Hg)/m³ (skin)

PEL: 0,1 mg(Hg)/m³ (skin)

EU Occupational Exposure Limits: 0,1 mg/m³

Methyl Alcohol

EEC Number: 2006596

CAS No.: 67561

Percent Range: > 99,0

Percent Range Units: weight / weight

Ingredient EEC Symbol: F - HIGHLY FLAMMABLE T - TOXIC

Ingredient R phrase(s) (R phrase details given in Heading 16): R 11

TLV: 200 ppm

PEL: 200 ppm

EU Occupational Exposure Limits: 200 ppm (260 mg/m³)

3. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance: Clear, colorless liquid

Odor: Alcoholic

EU Symbols: T - TOXIC F - HIGHLY FLAMMABLE

R PHRASES: R 11: Highly flammable. R 23/24/25: Toxic by inhalation, in contact with skin and if swallowed. R 39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Protective Equipment:

Potential Health Effects:

Eye Contact (EC): Causes moderate irritation

Skin Contact (EC): Causes moderate irritation

Skin Absorption (EC): Toxic Effects similar to those of ingestion

Target Organs (SA E): Optic nerve Central nervous system Kidneys Cardiovascular system

Ingestion (EC): Toxic Cannot be made non-toxic. Methanol causes central nervous system depression, symptoms may include: drunkenness, drowsiness, dizziness, lightheadedness, unconsciousness and coma. Methanol causes cardiovascular effects such as cardiac depression and blood pressure changes. Methanol may cause irritation of the eyes, visual impairment or blindness. May cause: headache weakness nausea vomiting shock loosening of the teeth toxic nephritis (inflammation of the kidneys) liver damage kidney damage

Target Organs (Ing E): Optic nerve Central nervous system Cardiovascular system Kidneys Liver

Inhalation: Methanol causes central nervous system depression, symptoms may include: drunkenness, drowsiness, dizziness, lightheadedness, unconsciousness and coma. Methanol causes cardiovascular effects such as cardiac depression and blood pressure changes. Methanol may cause irritation of the eyes, visual impairment or blindness. May cause: mouth soreness nausea vomiting headache weakness muscular twitching kidney damage loosening of the teeth death

Target Organs (Inh E): Optic nerve Central nervous system Cardiovascular system Kidneys

Medical Conditions Aggravated: Allergies or sensitivity to mercury. Pre-existing: Eye conditions Skin conditions Kidney conditions Central nervous system diseases

Chronic Effects: Methanol is a cumulative poison. Methanol may cause visual impairment and possibly blindness by repeated or prolonged exposure. Mercury is a general protoplasmic poison; it circulates in the blood and is stored in the liver, kidneys, spleen and bones. Main symptoms are sore mouth, tremors and psychic disturbances. Chronic overexposure may cause central nervous system effects brain damage kidney damage liver damage

Cancer / Reproductive Toxicity Information:

This product does NOT contain any IARC listed chemicals.

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

Toxicologically Synergistic Products: None reported

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. Remove contaminated clothing. Call physician immediately.

Ingestion (First Aid): Induce vomiting using syrup of ipecac or by sticking finger down throat. Never give anything by mouth to an unconscious person. Call physician immediately.

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

5. FIRE FIGHTING MEASURES

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

Hazardous Combustion Products: Toxic fumes of: mercury carbon monoxide, carbon dioxide.

Fire / Explosion Hazards: Flammable Liquid Do not expose to flames. Do not expose to sparks or other ignition sources. May react violently with: strong oxidizers

Static Discharge: None reported.

Mechanical Impact: None reported

Extinguishing Media: Carbon dioxide Alcohol foam. Dry chemical.

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.

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: Releases of this material may contaminate the environment. Remove all combustible material from spill area. Remove all ignition and spark-creating sources from the spill area. Cover spilled liquid with a commercially available flammable liquid sorbent such as vapor barrier blanket or activated carbon to avoid evolution of fumes. Vapors may travel to a source of ignition and flash back. May be ignited by: heat, sparks, or flames. Material will float on water creating a fire hazard. Dike the material to create a barrier to combustibles.

Clean-up Technique: Eliminate all sources of ignition. Mercury and its compounds are extremely toxic! Be extremely careful not to contact the spill or breathe any vapors. Absorb spilled liquid with non-reactive sorbent material. Sweep up spilled material and absorbent with non-sparking tools. Dispose of material in an E.P.A. approved hazardous waste facility. Dispose of all mercury contaminated material at an E.P.A. hazardous waste facility. Decontaminate area with commercially available mercury absorbing compounds.

Evacuation Procedure: Evacuate general area (50 foot radius or as directed by your facility's emergency response plan) when: any quantity is spilled. If conditions warrant, increase the size of the evacuation.

7. HANDLING AND STORAGE

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

Storage: Protect from: sparks, flames and other ignition sources light Keep away from: oxidizers

Special Packaging Instructions: Not applicable

Use of the substance/preparation: Determination of chloride

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Have an eyewash station nearby. Use a fume hood to avoid exposure to dust, mist or vapor. Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: chemical splash goggles

Skin / Hand Protection: nitrile gloves lab coat

Inhalation Protection: laboratory fume hood

Precautionary Measures: Avoid contact with: eyes skin clothing Do not breathe: mist/vapor Wash thoroughly after handling. Protect from: light heat sparks, flames and other ignition sources Keep away from: oxidizers

TLV: Not established

PEL: Not established

EU Occupational Exposure Limits: For methyl alcohol: 200 ppm (260 mg/m³)

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid

Physical State: Liquid

Odor: Alcoholic

pH: Not available

Vapor Pressure: 100 mm @ 100°C (212°F)

Vapor Density (air = 1): 1,11

Boiling Point: 65°C; 149°F

Melting Point: -98°C; -144°F

Flash Point: 12°C; 54°F

Method: Closed cup

Autoignition Temperature: 385°C; 725°F

Flammability Limits:

Lower Explosion Limits: 6,7%

Upper Explosion Limits: 36,5%

Specific Gravity (water = 1): 0,79

Evaporation Rate (water = 1): 5,9

Volatile Organic Compounds Content: ~100%

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

Solubility:

Water: Miscible

Acid: Not determined

Other: Not determined
Metal Corrosivity:
Steel: Not determined
Aluminum: Not determined

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.
Conditions to Avoid: Exposure to light. Extreme temperatures
Reactivity / Incompatibility: Incompatible with: oxidizers
Hazardous Decomposition: Toxic fumes of: mercury carbon monoxide carbon dioxide
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data:

LD50: None reported

LC50: None reported

Dermal Toxicity Data: Methanol Skin monkey LDLo = 393 mg/kg; Methanol Skin rabbit LD50 = 15800 mg/kg;
Mercuric Thiocyanate Skin rat LD50 = 685 mg/kg

Skin and Eye Irritation Data: Methanol Skin rabbit 20 mg/24H - MODERATE; Methanol Eye rabbit 100 mg/24H - MODERATE

Mutation Data: Methanol: DNA inhibition - Human - Lymphocytes - 300 mmol/l; DNA damage - Oral rat - 10µg/kg

Reproductive Effects Data: Methanol: Inhalation mouse 1500 ppm/6H Specific developmental abnormalities - Central nervous system; Inhalation rat 10000 ppm/7H Embryo or Fetus - Fetotoxicity

Inhalation rat 20000 ppm/7H Specific developmental abnormalities - musculoskeletal, endocrine system, cardiovascular, urogenital

Ingredient Toxicological Data: Methanol Oral rat LD50 = 5628 mg/kg; oral human LDLo = 143 mg/kg; Mercuric Thiocyanate Oral rat LD50 = 46 mg/kg

This product does NOT contain any IARC listed chemicals.

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

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

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Methanol Solution

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ICAO Hazard Class: 3

ICAO Subsidiary Risk: 6,1

ICAO UN/ID Number: UN1230

ICAO Packing Group: II

I.M.O.:

I.M.O. Proper Shipping Name: Methanol Solution

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I.M.O. Hazard Class: 3

I.M.O. Subsidiary Risk: 6,1
I.M.O. UN Number: UN1230
I.M.O. Packing Group: II

A.D.R.:

A.D.R. Proper Shipping Name: Methanol Solution

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A.D.R Hazard Class: 3
A.D.R. Subsidiary Risk: 6,1
A.D.R. UN-Number:: 1230
A.D.R. Packing Group: II

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

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: T - TOXIC F - HIGHLY FLAMMABLE

R PHRASES: R 11: Highly flammable. R 23/24/25: Toxic by inhalation, in contact with skin and if swallowed. R 39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

S PHRASES: S 7: Keep container tightly closed. S 16: Keep away from sources of ignition - No smoking. S 36/37: Wear suitable protective clothing and gloves. S 45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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. CCINFO RTECS. Canadian Centre for Occupational Health and Safety. Hamilton, Ontario Canada: 30 June 1993. 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. In-house information. List of Dangerous Substances Classified in Annex I of the EEC Directive (67/548) - Classification, Packaging and Labeling of Dangerous Substances, Amended July 1992. Sax, N. Irving. Dangerous Properties of Industrial Materials, 7th Ed. New York: Van Nostrand Reinhold Co., 1989. Technical Judgment. Vendor Information.

R PHRASES: R 11: Highly flammable. R 23/24/25: Toxic by inhalation, in contact with skin and if swallowed. R 39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Use of the substance/preparation: Determination of chloride

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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