

## Material Safety Data Sheet

Date Printed: 27/JAN/2005

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Version 1.4

According to 91/155/EEC

## 1 - Product and Company Information

Product Name HYDRANAL-COULOMAT AD, REAG FOR  
COULOMETR IC KF TITRATION, W/O DIAPHRAGM

Product Number 34810

Company Sigma-Aldrich Company Ltd.  
The Old Brickyard  
New Road, Gillingham SP8 4XT  
United Kingdom

Technical Phone # 44-(0)-1747-833000  
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## 2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
HYDRANAL COULOMAT AD	None	None	None

Ingredient Name	Percent	CAS #	EC no	Annex I Index Number
METHANOL	>= 60 <= 80	67-56-1	200-659-6	603-001-00-X

Symbols: F T

R-Phrases: 11 23/24/25 39/23/24/25

Highly flammable. Toxic by inhalation, in contact with skin and if  
swallowed. Toxic: danger of very serious irreversible effects  
through inhalation, in contact with skin and if swallowed.

DIETHANOLAMINE	>= 10 <= 30	111-42-2	203-868-0	603-071-00-1
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Symbols: Xn

R-Phrases: 22 38 41 48/22

Harmful if swallowed. Irritating to skin. Risk of serious damage  
to eyes. Harmful: danger of serious damage to health by prolonged  
exposure if swallowed.

IMIDAZOLE	>= 5 <= 15	288-32-4	206-019-2	None
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Symbols: C

R-Phrases: 22 34

Harmful if swallowed. Causes burns.

SULFUR DIOXIDE	>= 5 <= 10	7446-09-5	231-195-2	None
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Symbols: T

R-Phrases: 23 34

Toxic by inhalation. Causes burns.

## 3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. Risk of serious damage to eyes. Harmful: danger of serious damage to health by prolonged exposure if swallowed.

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#### 4 - First Aid Measures

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##### AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

##### AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

##### AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

##### AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

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#### 5 - Fire Fighting Measures

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##### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

##### SPECIAL RISKS

Specific Hazard(s): Flammable liquid. Emits toxic fumes under fire conditions.

Explosion Hazards: Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions.

##### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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#### 6 - Accidental Release Measures

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##### PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition.

##### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

##### ENVIRONMENTAL PRECAUTION(S)

Do not allow material to enter drains or water courses. Avoid contaminating sewers and waterways with this material.

##### METHODS FOR CLEANING UP

Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.



Solvent Content	N/A
Water Content	N/A
Surface Tension	N/A
Conductivity	N/A
Miscellaneous Data	N/A
Solubility	N/A

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## 10 - Stability and Reactivity

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### STABILITY

Stable: Stable.

Conditions to Avoid: Moisture.

Materials to Avoid: Acids, Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Sulfur oxides, Hydrogen iodide.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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## 11 - Toxicological Information

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### IRRITATION DATA

Skin

Rabbit

100 %

Remarks: No irritation effect

Eyes

Rabbit

100 %

Remarks: Severe irritation effect

### SENSITIZATION

Sensitization: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

### SIGNS AND SYMPTOMS OF EXPOSURE

Methyl alcohol may be fatal or cause blindness if swallowed.

Cannot be made non-poisonous. Ingestion can cause: Nausea, headache, and vomiting. Gastrointestinal disturbances.

Dizziness. Weakness. Confusion. Drowsiness. Unconsciousness. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: Toxic if absorbed through skin.

Eye Contact: Causes severe eye irritation.

Inhalation: Toxic if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion: Toxic if swallowed.

### TARGET ORGAN INFORMATION

Eyes. Kidneys. Liver. Heart. Blood. Thyroid.

### CHRONIC EXPOSURE - TERATOGEN

Result: Exposure to excessive amounts of iodine during pregnancy is capable of producing fetal hypothyroidism. Iodine-containing drugs have been associated with fetal goiter.

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## 12 - Ecological Information

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No data available.

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## 13 - Disposal Considerations

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### SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

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## 14 - Transport Information

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### RID/ADR

UN#: 1230  
Class: 3  
PG: II  
Proper Shipping Name: Methanol solution

### IMDG

UN#: 1230  
Class: 3  
PG: II  
Subrisk: 6.1  
Proper Shipping Name: Methanol solution  
Marine Pollutant: No  
Severe Marine Pollutant: No

### IATA

UN#: 1230  
Class: 3  
PG: II  
Subrisk: 6.1  
Proper Shipping Name: Methanol solution  
Inhalation Packing Group I: No

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## 15 - Regulatory Information

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### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: F T

Highly Flammable. Toxic.

R-PHRASES: 11 23/24/25 39/23/24/25 41 48/22

Highly flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. Risk of serious damage to eyes. Harmful: danger of serious damage to health by prolonged exposure if swallowed.

S-PHRASES: 7 16 26 36/37/39 45

Keep container tightly closed. Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### COUNTRY SPECIFIC INFORMATION

#### Germany

WGK: 1 (self-classification)

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WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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