

Material Safety Data Sheet

Date Printed: 27/JAN/2005

Date Updated: 11/SEP/2004

Version 1.5

According to 91/155/EEC

1 - Product and Company Information

Product Name HYDRANAL COMPOSOLVER, WORKING MEDIUM
FREE FROM METHANOL FOR VOLUMETRIC KARL
FISCHER TITRATION

Product Number 34734

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

Technical Phone # 44-(0)-1747-833000
Fax 44-(0)-1747-833313
Emergency Phone # 44-(0)-1747-833100

2 - Composition/Information on Ingredients

Product Name		CAS #	EC no	Annex I Index Number
HYDRANAL COMPOSOLVER		None	None	None
Ingredient Name	Percent	CAS #	EC no	Annex I Index Number
ETHYL ALCOHOL, NON-DENATURED, 200 PROOF Symbols: F R-Phrases: 11 Highly flammable.	>= 60	64-17-5	200-578-6	603-002-00-5
IMIDAZOLE Symbols: C R-Phrases: 22 34 Harmful if swallowed. Causes burns.	>= 5 <= 10	288-32-4	206-019-2	None
SULFUR DIOXIDE Symbols: T R-Phrases: 23 34 Toxic by inhalation. Causes burns.	>= 5 <= 10	7446-09-5	231-195-2	None
TOLUENE Symbols: F Xn R-Phrases: 11 20 Highly flammable. Harmful by inhalation.	<= 2	108-88-3	203-625-9	601-021-00-3

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
Highly flammable.

4 - First Aid Measures

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 contact, immediately wash skin with soap and copious amounts of water.

AFTER EYE CONTACT

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

AFTER INGESTION

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

5 - Fire Fighting Measures

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. May form explosive mixtures with air

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

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

6 - Accidental Release Measures

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

Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

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

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.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed. Keep away from heat, sparks, and open flame.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required.

GENERAL HYGIENE MEASURES

Remove and wash contaminated clothing promptly. Wash thoroughly after handling.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Government approved respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance	Physical State: Liquid	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/MP Range	76 °C	
MP/MP Range	N/A	
Flash Point	10 °C	Method: closed cup
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	0.802 g/cm ³	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

10 - Stability and Reactivity

STABILITY

Stable: Stable.

Materials to Avoid: Strong oxidizing agents, Plastics.

HAZARDOUS DECOMPOSITION PRODUCTS

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

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

SIGNS AND SYMPTOMS OF EXPOSURE

Can cause CNS depression. Narcotic effect. Damage to the heart.

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: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

TARGET ORGAN INFORMATION

Nerves. Liver. Heart. Kidneys. Blood. Bladder. Brain.

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

12 - Ecological Information

No data available.

13 - Disposal Considerations

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.

14 - Transport Information

RID/ADR

UN#: 1170
Class: 3
PG: II
Proper Shipping Name: Ethanol

IMDG

UN#: 1170
Class: 3
PG: II
Proper Shipping Name: ETHANOL SOLUTIONS
Marine Pollutant: No
Severe Marine Pollutant: No

IATA

UN#: 1170
Class: 3
PG: II
Proper Shipping Name: Ethanol solution
Inhalation Packing Group I: No

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: F
Highly Flammable.
R-PHRASES: 11
Highly flammable.

S-PHRASES: 16

Keep away from sources of ignition - no smoking.

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 1 (Self classification)

NORWAY

Labelling for organic solvents where the package is 1 liter or more.

YL-tall m3/l: 700-1100

YL-group: 3

Risk phrases: 20

Harmful by inhalation.

Safety phrases: 38 42

In case of insufficient ventilation, wear suitable respiratory equipment. During fumigation/spraying wear suitable respiratory equipment.

16 - Other Information

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.

DISCLAIMER

For R&D use only. Not for drug, household or other uses.