

# FORMALDEHYDE

## SOLUTION U.S.P.

FOR MANUFACTURING USE ONLY. A DISINFECTANT  
FOR FORMULATING USE.

### Active Ingredients:

Formaldehyde ..... 37%  
Methyl Alcohol ..... 11%  
Inert Ingredients ..... 52%

EPA Reg. No. 352-XXX

EPA Est. No. 352-NJ

EPA Est. No. 352-OH

FORMALDEHYDE  
SOLUTION  
UN 1198

Keep out of reach of children.

 **DANGER  
POISON**   
CALL A PHYSICIAN

### Statement of Practical Treatment

**If in eyes,** immediately flush with plenty of water for 15 minutes, call a physician

**If on skin,** wash with plenty of soap and water

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

**If swallowed,** induce vomiting immediately by giving two glasses of water and sticking finger down throat. Call a physician. Never give anything by mouth to an unconscious person

See Side Panel For Additional Precautionary Statements.

**NET 53.8 gal (203 L)**

manufactured by: E. I. DU PONT DE NEMOURS & CO. (INC.)  
CHEMICALS AND PIGMENTS DEPARTMENT • WILMINGTON, DE

ACCEPTED  
with conditions  
In U.S. Patent Office

RECEIVED

352-424

Precautionary Statements  
Hazards to Humans

**DANGER!**

CAUSES EYE BURNS.  
HARMFUL IF INHALED OR ABSORBED  
THROUGH SKIN. MAY CAUSE  
ALLERGIC SKIN REACTION.  
MAY BE FATAL OR CAUSE BLINDNESS  
IF SWALLOWED.  
CAN NOT BE MADE NONPOISONOUS.  
COMBUSTIBLE.

Before Using, Read The Du Pont  
Formaldehyde Product Data Sheet.

Do not get in eyes.  
Avoid contact with skin and clothing.  
Avoid breathing mist or vapor.  
Keep container closed.  
Use with adequate ventilation.  
Do not use or store near heat or open flame.  
Wash thoroughly after handling.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and aquatic animals and to some terrestrial  
birds. Do not discharge into lakes, streams, or public waterways  
unless authorized by a local health department. For guidance, contact your  
Regional Office of the Environmental Protection Agency.

**DIRECTIONS**

It is a violation of Federal law to use this product in a  
manner inconsistent with its labeling.

**STORAGE AND DISPOSAL:** Store at room temperature  
above 50 F (10 C) to prevent formation of white solid or  
paste (Paraformaldehyde). Keep container closed.

**PESTICIDE DISPOSAL:** Pesticide, spray mixture, or  
rinse water that cannot be used according to label  
instructions must be disposed of according to applicable  
Federal, state, or local procedures.

**CONTAINER DISPOSAL:** Triple rinse and recycle, or  
puncture and dispose of in a sanitary landfill, or by other  
approved state and local procedures.

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Packaged and  
Distributed by:

# DU PONT

## MATERIAL SAFETY DATA SHEET

### IDENTIFICATION

#### Name

Formaldehyde Solutions

#### Grade

USP 37-7, USP 37-11, LM 37 to 52%

#### Synonyms

Formalin, Methanal

#### CAS Name

Formaldehyde

I.D. Nos./Codes NIOSH Registry No. LP8925000

Wiswesser Line Notation VHH

#### Manufacturer/Distributor

E. I. du Pont de Nemours & Co. (Inc.)

#### Address

Wilmington, DE 19898

### PHYSICAL DATA

#### Boiling Point, 760 mm Hg

96.7 to 100°C (206 to 212°F)

#### Specific Gravity

1.10 to 1.13

#### Vapor Density

~1

#### % Volatiles by Vol.

100%

#### Form

Liquid

#### Appearance

Clear

#### pH Information

2.8 to 4.0

### HAZARDOUS COMPONENTS

#### Material(s)

USP 37-7

USP 37-11

LM Grades

#### Approximate %

Formaldehyde 37%

Formaldehyde 37%

Formaldehyde 37 to 52%

Methanol 7%

Methanol 11%

Methanol 0.9 to 1.3%

### HAZARDOUS REACTIVITY

#### Instability

No known hazardous instability.

#### Incompatibility

Reacts with many compounds. Reaction with phenol, strong acids, or alkalis may be violent. Reaction with hydrochloric acid may form bis-chloromethyl ether, an OSHA-regulated carcinogen.

Decomposition: Slow at elevated temperatures. Formaldehyde gas is released.

#### Polymerization

Nonhazardous polymerization may occur at low temperatures.

E-44453

Date: 8/81

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## FIRE AND EXPLOSION DATA

**Flash Point**                      **Method**  
60 to 83°C                      TCC  
(140 to 181°F)  
**Flammable Limits in Air, % by Vol.**  
Lower 7  
Upper 73

**Autoignition Temperature**  
424°C (795°F)

**Fire and Explosion Hazards**  
Combustible

### Extinguishing Media

"Alcohol" foam, dry chemical, carbon dioxide, water spray.

**Special Fire Fighting Instructions** Cool container with water spray. Water spray or fog will help to absorb escaping fumes. Evacuate affected area. Stay upwind and avoid contact with smoke and fumes. If contact can not be avoided, wear personal protective equipment (see page 3) including chemical splash goggles and air mask with breathing air supply.

## HEALTH HAZARD INFORMATION

### Exposure Limits

OSHA 8-hour Time-Weighted Average (TWA) = 3 ppm; ceiling = 5 ppm. Du Pont Limit = 1 ppm TWA, 2 ppm ceiling.

**Significant Routes and Effects of Exposure** Causes eye burns; effects may be delayed. Harmful if inhaled or absorbed through skin. May cause allergic skin reaction, USP grades may be fatal or cause blindness if swallowed; cannot be made nonpoisonous.

**Chronic Effects:** In a 2-year study at the Chemical Industry Institute of Toxicology (CIIT), nasal tumors were detected in rats exposed (via inhalation) to formaldehyde at 6 ppm and in rats and mice exposed at 15 ppm.

### Safety Precautions

Do not get in eyes.

Avoid contact with skin and clothing.

Avoid breathing mist or vapor.

Wash thoroughly after handling. Wash contaminated clothing thoroughly before reuse.

### First Aid

**Eyes:** In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

**Skin:** In case of skin contact, immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician.

**Inhalation:** If inhaled, remove patient to fresh air immediately. Call a physician promptly. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, administer oxygen.

**Ingestion:** If swallowed, induce vomiting immediately by giving 2 glasses of water and sticking finger down throat. Call a physician. Never give anything by mouth to an unconscious person.

## PROTECTION INFORMATION

### Ventilation

Adequate to keep formaldehyde concentration below indicated exposure limits. If limits may be exceeded, use air masks with breathing air supply.

### Personal Protective Equipment

Use chemical splash goggles, neoprene or polyvinyl chloride gloves, coveralls with long sleeves, hard hat, and safety shoes with neoprene or PVC soles. Use breathing air supply from airline mask or self-contained breathing mask if exposure limits are exceeded.

### Other

ACCEPTED  
with conditions  
for use

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## DISPOSAL INFORMATION

### Aquatic Toxicity

TLm 96: 100-10 ppm

**Spill, Leak or Release** Keep upwind of leak; evacuate area until gas has dispersed. Soak up small leaks with rags or other absorbent and remove in covered metal containers or drums. Dike large spills. Neutralize with dilute (5%) solutions of ammonia, sodium sulfite, or sodium bisulfite and remove. Flush spill area with plenty of water.

### Waste Disposal

Comply with federal, state, and local regulations. If approved, flush to chemical sewer, incinerate, dispose in sanitary landfill, or flush to waste water treatment system. Very dilute solutions can be handled by biochemical action in formaldehyde-adapted waste treatment systems; water spray or fog will help absorb escaping fumes. (See 40 CFR 116).

## SHIPPING INFORMATION

### Transportation

**DOT Hazard Class:** Combustible liquid (in containers over 110 gallons) ORM-A (in containers of 110 gallons or less)

### DOT Shipping Name:

Formaldehyde or Formalin Solution

### RQ Quantity:

1,000 lb/454 kg

49 CFR 172.101

### Shipping Containers

Railroad tank cars, tank trucks, drums, bottles.

### IMCO Class:

3.8 (flash point  $\leq 61^{\circ}\text{C}/141^{\circ}\text{F}$ )

9 (flash point  $> 61^{\circ}\text{C}/141^{\circ}\text{F}$ )

### UN No.:

1198 (flash point  $\leq 61^{\circ}\text{C}/141^{\circ}\text{F}$ )

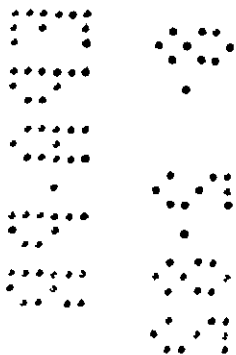
2209 (flash point  $> 61^{\circ}\text{C}/141^{\circ}\text{F}$ )

### Storage Conditions

Keep container closed. Keep away from heat and open flame. Store in tested tank or warm room, above minimum storage temperature for grade handled.

## ADDITIONAL INFORMATION AND REFERENCES

For more information, see: Du Pont Formaldehyde Solutions Data Sheet and Du Pont Formaldehyde Solutions Properties, Uses, Storage and Handling Bulletin.



E- 44453

Date: 8/81



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|---|----------------------|--|
| <b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b><br><b>OFFICE OF PESTICIDE PROGRAMS</b><br>REGISTRATION DIVISION (WH 367)<br>WASHINGTON, D.C. 20460  | EPA REGISTRATION NO. | DATE OF ISSUANCE<br><b>16 MAR 1983</b> |
| <b>NOTICE OF PESTICIDE:</b> <i>Registration</i><br><i>Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended.</i>  | TERM OF ISSUANCE     |  |
| NAME OF PESTICIDE PRODUCT   |                      |  |
| NAME AND ADDRESS OF REGISTRANT (include ZIP code)   |                      |  |
| <b>NOTE:</b> Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.   |                      |  |
| On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.   |                      |  |
| A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.   |                      |  |
| Registration is in no way to be construed as an endorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others. |                      |  |
| <div style="border: 1px solid black; height: 295px; width: 100%;"></div>  |                      |  |
| <div style="display: flex; justify-content: space-between;"> <span><input checked="" type="checkbox"/> ATTACHMENT IS APPLICABLE</span> </div> <div style="display: flex; justify-content: space-between;"> <span>SIGNATURE OF APPROVING OFFICIAL</span> <span>DATE</span> </div>  |                      |  |

3. Copies of the Disinfectant Formulation Schedule must be submitted to the Disinfectant Branch for review, use, storage and handling before it must be submitted.

4. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 Enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

*John H. Lee*  
John H. Lee  
Product Manager (31)  
Disinfectants Branch  
Registration Division (TS-767)

Enclosure