



# Anachemia

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Ville St. Pierre, Que  
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Rouses Point, NY  
12979

## MATERIAL SAFETY DATA SHEET

### EMERGENCY NUMBERS:

(USA) CHEMTREC: 1(800) 424-9300 (24hrs)  
(CAN) CANUTEC: 1(800) 996-6666 (24hrs)  
(USA) Anachemia: 1(518) 297-4444  
(CAN) Anachemia: 1(514) 489-5711

**PRODUCT NAME:** FORMALDEHYDE

### 1. PREPARATION INFORMATION

Data Sheet No.: 4553-3  
Prepared by: MSDS Department  
Telephone #: (514) 489-5711  
Date: 6/19/92  
Supersedes: 4553-2

### 2. PRODUCT IDENTIFICATION

Synonym or Generic ID: Methylene oxide, Formol, Formalin, AC-4553, AC-4554  
DOT Hazard Classification: 3.3 9.2 PKG GR III  
PIN (UN#/NA#): UN1198  
Formula: n/ap  
Formula Wt: n/ap  
WHMIS Class: Class B Div 3; Class D Div 1 Sub A; Class D Div 2 Sub A  
Supplier: Anachemia Canada Inc., P.O. Box 147, Lachine  
Que., H8S 4A7, Tel: (514) 489-5711, Telefax: (514) 363-5281

### 3. COMPONENTS

| Ingredients  | CAS       | %         | TLV   | Hazard                     |
|--------------|-----------|-----------|---|----------------------------|
| Formaldehyde | 50-00-0   | 36.5-38.0 | CL 0.3 ppm<br>(ACGIH)                                       | Combustible liquid/ Poison |
| Methanol     | 67-56-1   | 5-15      | (TWA) 200 ppm<br>(260 mg/m <sup>3</sup> )<br>(skin) (ACGIH) | Flammable liquid/ Poison   |
| Water        | 7732-18-5 | Balance   | Not established   | n/ap                       |

### 4. PHYSICAL DATA

Physical State: Liquid  
Odor Threshold: n/av  
Freezing Point: <80°C  
Boiling Point: 91-101°C  
Vapor Pressure: 67-88 mm Hg @ 20°C  
Evaporation Rate: >1 (n-butyl acetate=1)  
Appearance/Odor: Clear liquid. Pungent odor.  
Vapor Density: 1.03  
Specific Gravity: 1.07-1.2  
Solubility In H<sub>2</sub>O: Miscible  
Coeff. H<sub>2</sub>O/Oil: n/av  
Percent Volatile: 100%  
pH: 2.8-4.0 (25°C)



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### 5. FIRE AND EXPLOSION HAZARD DATA

Flash Point (°C): 54-75°C      Flammable Limits: LEL 7.0%\*      UEL 73%\*      Autoignition (°C): n/av

Sensitive to Impact: n/av      Sensitive to Static Discharge: n/av

Extinguishing Media: Carbon dioxide, dry chemical powder, alcohol or polymer foam. Do not use water.

Hazardous Combustion Products: Oxides of carbon.

Firefighting Procedures: Self contained breathing apparatus with a full facepiece operated in a pressure demand or other positive pressure mode. Wear adequate personal protection to prevent contact with material or its combustion products. Cool containers with water spray. Disperse vapors with water spray if they have not ignited.

Special Fire and Explosion Hazards: Flash back along vapor trail may occur, eliminate all sources of ignition. Vapor forms explosive mixture with air between upper and lower explosive limits. Container explosion may occur under fire conditions. Emits toxic fumes under fire conditions. \* = For formaldehyde gas.

### 6. HEALTH HAZARD AND FIRST AID DATA

Primary Route(s) of entry: Inhalation and ingestion. Eye contact. Skin contact. Skin absorption.

Effects of Acute Exposure: May be fatal by ingestion, inhalation or skin absorption. Severe irritant. May cause burns. Lachrymator.

LCS0: IHL-MAM 92 mg/m3      LD50: CRL-MUS 42 mg/kg

Eyes: Vapors and mist causes tearing and severe irritation. Liquid causes severe burns. IRRITATION: EYE-RABBIT 750 ug/24H SEVERE.

Skin: Contact with liquid causes drying, scaling, and cracking. Prolonged and repeated contact causes hardening or tanning effect. May cause allergic dermatitis. Readily absorbed. LD50: SKIN-RABBIT 270 mg/kg.

Inhalation: Vapors and mists are extremely irritating to the nose, throat, lungs and mucous membranes. Bronchitis, pulmonary edema and chemical pneumonitis may occur. Can cause central nervous system depression (signs and symptoms may include headache, dizziness, nausea, vomiting, drowsiness and incoordination), coughing, chest pain and dyspnea. Prolonged exposure may result in more severe irritation and tissue damage.

Ingestion: Vapors, mists, and liquid are extremely irritating to the mouth and throat and stomach. Swallowing the liquid inflames the tissues, causes severe abdominal pain, nausea, vomiting, hematuria, proteinuria, anuria, acidosis, and possible loss of consciousness. Swallowing large quantities can cause blindness or death.

Effects of Chronic Overexposure: May cause allergic skin (dermatitis) or respiratory tract reaction (asthma) and central nervous system depression. Rats exposed to 15 ppm of formaldehyde for 24 months developed nasal cancer. NTP, IARC and OSHA have listed formaldehyde as a probable human carcinogen. Possible reproductive disorders from prolonged exposure (embryotoxic). Mutagen.



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Product name: FORMALDEHYDE

### 6. HEALTH HAZARD AND FIRST AID DATA (Continued)

|                    |                          |                      |                                     |                        |                                     |
|--------------------|--------------------------|----------------------|-------------------------------------|------------------------|-------------------------------------|
| Teratogen          | <input type="checkbox"/> | Carcinogen           | <input checked="" type="checkbox"/> | Mutagen                | <input checked="" type="checkbox"/> |
| Reproductive Toxin | <input type="checkbox"/> | Synergistic Products | <input type="checkbox"/>            | Not Fully Investigated | <input checked="" type="checkbox"/> |

#### FIRST AID

**Eyes:** Immediately flush eyes with copious quantities of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface. Get immediate medical attention.

**Skin:** Immediately wash skin with lots of soap and water. Remove contaminated clothing and shoes; wash before reuse. Get medical attention if irritation persists after washing.

**Inhalation:** Remove patient to fresh air. Administer approved oxygen supply if breathing is difficult. Administer artificial respiration or CPR if breathing has ceased. Get immediate medical attention.

**Ingestion:** If conscious, immediately induce vomiting by giving 2 glasses of water and sticking a finger down the throat. Get immediate medical attention. Do not give anything to an unconscious or convulsing person.

### 7. REACTIVITY DATA

**Hazardous Polymerization:** Will not occur.

**Stability:** Stable. Conditions to avoid: heat, sparks and flame, temperatures below 20°C.

**Incompatibility:** Acids, alkalis, anhydrides, isocyanates, urea, phenol, oxidizing agents, oxides, organic oxides, reducing agents, ammonia, aniline, magnesium carbonate, performic acid, alkali metals, amines, hydrogen peroxide, nitromethane, nitrogen dioxide, perchloric acid, bases.

**Reaction Product(s):** Reaction with hydrochloric acid may form bis-chloromethyl ether, an OSHA regulated carcinogen.

### 8. PREVENTATIVE MEASURES

#### PROTECTIVE EQUIPMENT TO BE USED

**Respiratory Protection:** If more than TLV, do not breathe vapor. Wear self-contained breathing apparatus.

**Ventilation:** Use only in a chemical fume hood. Adequate ventilation to maintain vapor/dust below TLV.

**Skin Protection:** Long-sleeved shirt, trousers, rubber boots, rubber gloves, and rubber apron. Sufficient to protect skin.

**Eye Protection:** Face shield, Safety goggles.

**Other Protective Equipment:** Make eye bath and emergency shower available.



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### 8. PREVENTATIVE MEASURES (Continued)

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#### SPILLAGE OR LEAKS PROCEDURES

Steps to be taken in case material is released or spilled:

Evacuate. Shut off all sources of ignition. Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. Absorb on sand or vermiculite and place in a closed container for disposal. Ventilate area and wash spill site after material pick up is complete. Use non-sparking tools.

Waste disposal method:

According to all applicable regulations. Avoid run off.

#### STORAGE AND HANDLING

Store in a cool place away from heated areas, sparks and flame. Store in a well ventilated area. Store away from incompatible materials. Keep tightly closed. Ground the container while dispensing. Do not use pressure to dispense. Empty container may contain hazardous residue. Do not add any other material to the container. Do not wash down the drain. Vapors are heavier than air and may travel along the ground or pool in low areas. Because vapor is heavy, ventilation must be provided at floor level as well as at higher levels. Use only explosion proof equipment. Do not get in eyes, on skin, or on clothing. Wash well after use. In accordance with good storage and handling practices. Do not allow smoking and food consumption while handling.

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### 9. SPECIAL PRECAUTIONS OR COMMENTS

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COMBUSTIBLE LIQUID! POISON! CARCINOGEN! MUTAGEN! EMBRYOTOXIC! SENSITIZER! SEVERE IRRITANT! DO NOT BREATHE VAPORS. AVOID ALL CONTACT WITH THE PRODUCT. AVOID PROLONGED OR REPEATED EXPOSURE. USE ONLY IN A CHEMICAL FUME HOOD. KEEP AWAY FROM HEAT, SPARKS AND FLAME. STORE ABOVE 20°C. FORMALDEHYDE SOLUTIONS WILL START TO PRECIPITATE PARA-FORMALDEHYDE IF STORED BELOW THEIR RECOMMENDED STORAGE TEMPERATURE. 100 PPM FORMALDEHYDE IS IMMEDIATELY DANGEROUS TO LIFE OR HEALTH. TARGET ORGANS: RESPIRATORY SYSTEM, SKIN, EYES, LIVER AND KIDNEY.

NFPA Hazard Rating Health - 2. Flammability - 2. Reactivity - 0.

RTCS no. LP8925000.

n/a = not available  
n/ap = not applicable

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Anachemia shall not be held liable for any damage or injury resulting from handling or from contact with the above product.