# Material Safety Data Sheet

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## I. PRODUCT IDENTIFICATION

| | |
|---|---|
| **Catalog Number / Product Name:** | **30603, 30603-5XX, & 30703 / VOC MegaMix with gases** |
| **Revision Number:** | 5 |
| **Intended use:** | For Laboratory use only |

## II. HAZARD INDENTIFICATION

**Emergency Overview:**

| | |
|---|---|
| **Physical Hazards:** | F - Highly flammable |
| **Health Hazards:** | T - Toxic |

| | |
|---|---|
| **Routes of Entry:** | Ingestion Contact Inhalation |
| **Target Organs Potentially Affected By Exposure:** | skin, eyes, CNS, GI tract, respiratory system |
| **Chemical Interactions That Change Toxicity:** | None Known |

**Immediate (Acute) Health Effects by Route of Exposure:**

| | |
|---|---|
| **Inhalation Irritation:** | Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache. |
| **Inhalation Toxicity:** | Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness. |
| **Skin Contact:** | Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage. |
| **Eye Contact:** | Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue. |
| **Ingestion Irritation:** | Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed. |
| **Ingestion Toxicity:** | Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed. |

**Long-Term (Chronic) Health Effects:**

| | |
|---|---|
| **Carcinogenicity:** | Contains a probable or known human carcinogen. |
| **Reproductive and Developmental Toxicity:** | Contains a known human reproductive and/or developmental hazard. |
| **Inhalation:** | Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs) |
| **Skin Contact:** | Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage. |
| **Ingestion:** | Toxic if swallowed. May cause target organ failure and/or death. |

## III. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Name | CAS # | EINEC # | % Composition |
|---|---|---|---|
| methanol | 67-56-1 | 200-659-6 | 98.800000 |

## IV. FIRST-AID MEASURES

**Inhalation:** Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

**Eyes:** Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

**Skin Contact:** Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

**Ingestion:** Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this MSDS.

## V. FIRE FIGHTING MEASURES

**Extinguishing Media:** Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

**Fire and/or Explosion Hazards:** Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

**Fire Fighting Methods and Protection:** Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

**Hazardous Combustion Products:** Carbon monoxide, Carbon dioxide

## VI. ACCIDENTAL RELEASE MEASURES

**Personal Precautions and Equipment:** Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section VIII of this MSDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

**Methods for Clean-up:** Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section VIII at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

## VII. HANDLING AND STORAGE

**Handling Technical Measures and Precautions:** Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

**Storage Technical Measures and Conditions:** Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

## VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

**United States:**

| Chemical Name | CAS No. | IDLH | ACGIH STEL | ACGIH TLV-TWA | OSHA Exposure Limit |
|---|---|---|---|---|---|
| methanol | 67-56-1 | 6000 ppm IDLH | 250 ppm STEL | 200 ppm TWA | 200 ppm TWA; 260 mg/m3 TWA |

**United Kingdom:**

| Chemical Name | CAS No. | EINEC No. | WEL-STEL | WEL-TWA |
|---|---|---|---|---|
| **methanol** | **67-56-1** | **200-659-6** | **250 ppm STEL; 333 mg/m3 STEL** | **200 ppm TWA; 266 mg/m3 TWA** |

**France:**

| Chemical Name | CAS No. | EINEC No. | VLCTs-STEL | VME-TWA |
|---|---|---|---|---|
| **methanol** | 67-56-1 | 200-659-6 | 1000 ppm VLCT; 1300 mg/m3 VLCT | **200 ppm VME (restrictive limit); 260 mg/m3 VME (restrictive limit)** |

**Germany:**

| Chemical Name | CAS No. | EINEC No. | VELs |
|---|---|---|---|
| methanol | 67-56-1 | 200-659-6 | 200 ppm TWA (exposure factor 4); 270 mg/m3 TWA (exposure factor 4) |

**Personal Protection:**

**Engineering Measures:** Local exhaust ventilation is recommended when generating excessive levels of vapors from handling or thermal processing.

**Respiratory Protection:** Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section III, provide respiratory protection.

**Eye Protection:** Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

**Skin Protection:** Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

## IX. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Odor:** | Mild |
| **pH:** | No data available. |
| **Vapor Density:** | 1.1 (air = 1) |
| **Melting Point:** | -98 °C |
| **Flash Point:** | No data available. |
| **Flammability:** | Highly Flammable |
| **Upper Flammable/Explosive Limit, % in air:** | 36.0 |
| **Lower Flammable/Explosive Limit, % in air:** | 6.0 |
| **Autoignition Temperature:** | 464 deg C |
| **Specific Gravity:** | 0.791-0.792 g/cm3 at 20 °C |
| **Evaporation Rate:** | No data available. |
| **Odor Threshold:** | No data available. |
| **Solubility:** | Moderate; 50-99% |
| **VOC % by weight:** | No data available. |

**Molecular Weight:** No data available.

## X. STABILITY AND REACTIVITY:

**Stability:** Stable under normal conditions.
**Materials to Avoid / Chemical Incompatiability:** Strong oxidizing agents
**Hazardous Decomposition Products:** Carbon dioxide Carbon monoxide

## XI. TOXICOLOGICAL INFORMATION:

**Component Toxicological Data:**

**NIOSH:**

| Chemical Name | CAS No. | LD50/LC50 |
|---|---|---|
| Methanol | 67-56-1 | Inhalation LC50 Rat: 83.2 mg/L/4H; Inhalation LC50 Rat:64000 ppm/4H; Oral LD50 Rat:5628 mg/kg; Dermal LD50 Rabbit:15800 mg/kg |

**Component Carcinogenic Data:**

**OSHA:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

**ACGIH:**

| Chemical Name | CAS No. |
|---|---|
| No data available. | |

**NIOSH:**

| Chemical Name | CAS No. |
|---|---|
| No data available. | |

**NTP:**

| Chemical Name | CAS No. |
|---|---|
| No data available. | |

**IARC:**

| Chemical Name | CAS No. | Group No. |
|---|---|---|
| Monograph 29, Supplement 7; 1987 | 71-43-2 | Group 1 |
| Vinyl chloride | 75-01-4 | Group 1 |
| Trichloroethylene | 79-01-6 | Group 2A |
| Monograph 63; 1995 | 127-18-4 | Group 2A |
| Ethylene dibromide | 106-93-4 | Group 2A |
| 1,2,3-Trichloropropane | 96-18-4 | Group 2A |
| Bromodichloromethane | 75-27-4 | Group 2B |
| Naphthalene | 91-20-3 | Group 2B |
| 1,2-Dibromo-3-chloropropane | 96-12-8 | Group 2B |
| Monograph 20, Supplement 7, Monograph 71; 1998 | 56-23-5 | Group 2B |
| Carbon tetrachloride | | |
| para-Dichlorobenzene | 106-46-7 | Group 2B |
| 1,2-Dichloroethane | 107-06-2 | Group 2B |
| Monograph 60; 1994 (Overall evaluation upgraded from 3 to 2B with supporting evidence from other data relevant to the evaluation of carcinogenicity and its mechanisms) | 100-42-5 | Group 2B |
| Styrene | | |
| Dichloromethane (Methylene chloride) | 75-09-2 | Group 2B |
| ethylbenzene | 100-41-4 | Group 2B |
| Chloroform | 67-66-3 | Group 2B |

## XII. ECOLOGICAL INFORMATION:

| | |
|---|---|
| **Overview:** | Moderate ecological hazard. This product may be dangerous to plants and/or wildlife. |
| **Mobility:** | No data |
| **Persistence:** | No data |
| **Bioaccumulation:** | No data |
| **Degradability:** | Biodegrades slowly. |
| **Ecological Toxicity Data:** | 0 |

## XIII. DISPOSAL CONSIDERATIONS:

| | |
|---|---|
| **Waste Description of Spent Product:** | Spent or discarded material is a hazardous waste. |
| **Disposal Methods:** | Dispose of by incineration following Federal, State, Local, or Provincial regulations. |
| **Waste Disposal of Packaging:** | Comply with all Local, State, Federal, and Provincial Environmental Regulations. |

## XIV: TRANSPORTATION INFORMATION:

| | |
|---|---|
| **United States:** | |
| **DOT Proper Shipping Name:** | Methanol |
| **UN Number:** | UN1230 |
| **Hazard Class:** | 3 |
| **Packing Group:** | II |
| **International:** | |
| **IATA Proper Shipping Name:** | Methanol |
| **UN Number:** | UN1230 |
| **Hazard Class:** | 3 (6.1) |
| **Packing Group:** | II |
| **Marine Pollutant:** | Yes |

## XV. REGULATORY INFORMATION:

**United States:**

| Chemical Name | CAS# | CERCLA | SARA 313 | SARA EHS 313 | TSCA |
|---|---|---|---|---|---|
| methanol | 67-56-1 | X | X | - | X |

**The following chemicals are listed on CA Prop 65:**

| Chemical Name | CAS # | Regulation |
|---|---|---|
| Bromodichloromethane | 75-27-4 | Prop 65 Cancer |
| Naphthalene | 91-20-3 | Prop 65 Cancer |
| 1,2-Dibromo-3-chloropropane (DBCP) | 96-12-8 | Prop 65 Cancer |
| Carbon tetrachloride | 56-23-5 | Prop 65 Cancer |
| Bromoform | 75-25-2 | Prop 65 Cancer |
| Trichloroethylene | 79-01-6 | Prop 65 Cancer |
| p-Dichlorobenzene | 106-46-7 | Prop 65 Cancer |
| Chloroethane (Ethyl chloride) | 75-00-3 | Prop 65 Cancer |
| Tetrachloroethylene (Perchloroethylene) | 127-18-4 | Prop 65 Cancer |
| Vinyl trichloride (1,1,2-Trichloroethane) | 79-00-5 | Prop 65 Cancer |
| Ethylene dibromide | 106-93-4 | Prop 65 Cancer |
| 1,2-Dichloropropane | 78-87-5 | Prop 65 Cancer |
| Benzene | 71-43-2 | Prop 65 Cancer |
| Ethylene dichloride (1,2-Dichloroethane) | 107-06-2 | Prop 65 Cancer |
| Vinyl chloride | 75-01-4 | Prop 65 Cancer |
| 1,1-Dichloroethane | 75-34-3 | Prop 65 Cancer |
| 1,2,3-Trichloropropane | 96-18-4 | Prop 65 Cancer |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | Prop 65 Cancer |
| Dichloromethane (Methylene chloride) | 75-09-2 | Prop 65 Cancer |
| Ethyl benzene | 100-41-4 | Prop 65 Cancer |
| Chloroform | 67-66-3 | Prop 65 Cancer |

| | | |
|---|---|---|
| Toluene | 108-88-3 | Prop 65 Devolop Tox |
| Ethylene dibromide | 106-93-4 | Prop 65 Devolop Tox |
| Benzene | 71-43-2 | Prop 65 Devolop Tox |
| Methyl bromide | 74-83-9 | Prop 65 Devolop Tox |
| Methyl chloride | 74-87-3 | Prop 65 Devolop Tox |
| 1,2-Dibromo-3-chloropropane (DBCP) | 96-12-8 | Prop 65 Rep Male |
| Ethylene dibromide | 106-93-4 | Prop 65 Rep Male |
| Benzene | 71-43-2 | Prop 65 Rep Male |

**State Right To Know Listing:**

| Chemical Name | CAS# | New Jersey | Massachusetts | Pennsylvania | California |
|---|---|---|---|---|---|
| methanol | 67-56-1 | X | X | X | X |

**EU Directives Classification:**
**Hazard Symbols**

**Risk Phrases:** R38:Irritating to the skin
R22:Harmful if swallowed.
R23/24/25:Toxic by inhalation, in contact with skin, and if swallowed
R11:Highly Flammable

**Safety Phrases:** S16:Keep away from sources of ignition - No smoking
S36/37/39:Wear suitable protective clothing, gloves and eye/face protection

## XVI: ADDITIONAL INFORMATION

**Prior Version Date:** 10/08/07

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