

Material Safety Data Sheet

Revision Date: 09/20/10



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I. PRODUCT IDENTIFICATION

Catalog Number / Product Name: 30223, 30223-5XX, & 30323 / Chlorobenzene-d5 Standard
Revision Number: 6
Intended use: For Laboratory use only

II. HAZARD IDENTIFICATION

Emergency Overview:

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

Routes of Entry: Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure: eyes, CNS, skin, 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: No data.
Reproductive and Developmental Toxicity: No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
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.

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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	99.800000
chlorobenzene-d5	3114-55-4		0.200000

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 to 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

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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
chlorobenzene-d5	3114-55-4	ND		No TLV	No PEL established

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
chlorobenzene-d5	3114-55-4		No data.	No data.

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)
chlorobenzene-d5	3114-55-4		No data.	No data.

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)
chlorobenzene-d5	3114-55-4		No data.

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

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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 Incompatibility: 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 4 h; Inhalation LC50 Rat 64000 ppm 4 h; 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.
No data.		Group 1
No data.		Group 2A
No data.		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.

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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
chlorobenzene-d5	3114-55-4	-	-	-	-

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
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State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
chlorobenzene-d5	3114-55-4	-	-	-	-

EU Directives Classification:

Hazard Symbols



Risk Phrases:

R23/25: Toxic by inhalation and if swallowed.

R11: Highly Flammable

Safety Phrases:

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection

S16: Keep away from sources of ignition - No smoking

XVI: ADDITIONAL INFORMATION

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