

MATERIAL SAFETY DATA SHEET

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Version 1.3

Section 1 - Product and Company Information

Product Name	LORMETAZEPAM METHANOL SOLUTION
Product Number	L8145
Brand	SIGMA

Company	Sigma-Aldrich Canada, Ltd
Address	2149 Winston Park Drive Oakville ON L6H 6J8 CA
Technical Phone:	9058299500
Fax:	9058299292
Emergency Phone:	800-424-9300

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
LORMETAZEPAM METHANOL SOLUTION	848-75-9	No

Formula	C16H12Cl2N2O2
Synonyms	2H-1,4-Benzodiazepin-2-one, 7-chloro-5-(2-chlorophenyl)-1,3-dihydro-3-hydroxy- 1-methyl- * 7-Chloro-5-(2-chlorophenyl)-3-hydroxy-1-methyl-2,3 -dihydro-1H-1,4-benzodiazepin-2-one * Lormetazepam * Methyllorazepam * N-Methyllorazepam * Ro 5-5516
RTECS Number:	DF2367700

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Flammable (USA) Highly Flammable (EU). Toxic.
Harmful if swallowed.
Target organ(s): Central nervous system.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

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

INHALATION EXPOSURE

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

Call a physician.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT

N/A

AUTOIGNITION TEMP

N/A

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

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

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

STORAGE

Store at 2-8°C

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS

Use only in a chemical fume hood.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

Section 9 - Physical/Chemical Properties

Appearance	Physical State: Solid	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	N/A	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point	N/A	
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Refractive Index	N/A	
Optical Rotation	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable.

Conditions of Instability: Light.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Hydrogen chloride gas.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Absorption: May be harmful if absorbed through the skin.

Inhalation: May be harmful if inhaled.

Ingestion: Harmful if swallowed.

TARGET ORGAN(S) OR SYSTEM(S)

Central nervous system.

SIGNS AND SYMPTOMS OF EXPOSURE

Exposure to and/or consumption of alcohol may increase toxic effects. Prolonged or repeated exposure can lead to habituation

or addiction. Exposure can cause drowsiness, light headedness, dizziness, headache, vertigo, blurred vision, slurred speech, confusion, gastrointestinal disturbances, cns depression, coma.

TOXICITY DATA

Oral

Rat

> 10000,000000 mg/kg

LD50

Remarks: Behavioral:Sleep. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Miosis (pupillary constriction). Skin and Appendages: Other: Hair.

Intraperitoneal

Rat

6250 MG/KG

LD50

Remarks: Lungs, Thorax, or Respiration:Respiratory depression. Kidney, Ureter, Bladder:Urine volume increased. Behavioral:Sleep.

Subcutaneous

Rat

>10 GM/KG

LD50

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Miosis (pupillary constriction). Behavioral:Sleep. Skin and Appendages: Other: Hair.

Oral

Mouse

1790,000000 mg/kg

LD50

Remarks: Behavioral:Sleep. Lungs, Thorax, or Respiration:Respiratory depression. Kidney, Ureter, Bladder:Urine volume increased.

Intraperitoneal

Mouse

780 MG/KG

LD50

Remarks: Behavioral:Sleep. Lungs, Thorax, or Respiration:Respiratory depression. Kidney, Ureter, Bladder:Urine volume increased.

Subcutaneous

Mouse

>10 GM/KG

LD50

Remarks: Lungs, Thorax, or Respiration:Dyspnea.

CHRONIC EXPOSURE - TERATOGEN

Species: Rat

Dose: 27 MG/KG

Route of Application: Oral

Exposure Time: (7-22D PREG/21D POST)

Result: Effects on Newborn: Viability index (e.g., # alive at day 4 per # born alive). Effects on Embryo or Fetus: Fetal death.

Species: Rat
Dose: 27 MG/KG
Route of Application: Oral
Exposure Time: (7-22D PREG/21D POST)
Result: Effects on Newborn: Physical. Specific Developmental Abnormalities: Musculoskeletal system.

Species: Rat
Dose: 270 MG/KG
Route of Application: Oral
Exposure Time: (7-22D PREG/21D POST)
Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain). Specific Developmental Abnormalities: Musculoskeletal system.

Species: Rat
Dose: 11 MG/KG
Route of Application: Oral
Exposure Time: (7-17D PREG)
Result: Specific Developmental Abnormalities: Musculoskeletal system.

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact the Drug Enforcement Administration concerning the disposal of controlled substances. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: Methanol
UN#: 1230
Class: 3
Packing Group: Packing Group II
Hazard Label: Flammable liquid
PIH: Not PIH

IATA

Proper Shipping Name: Methanol
IATA UN Number: 1230
Hazard Class: 3
Packing Group: II

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: F-T
Indication of Danger: Highly Flammable. Toxic.
R: 11-22
Risk Statements: Highly flammable. Harmful if swallowed.
S: 16-36-45
Safety Statements: Keep away from sources of ignition - no smoking. Wear suitable protective clothing. In case of accident or if you feel unwell, seek medical advice immediately (show the

label where possible).

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Flammable (USA) Highly Flammable (EU).
Toxic.
Risk Statements: Harmful if swallowed.
Safety Statements: Wear suitable protective clothing.
US Statements: Target organ(s): Central nervous system.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: No
NDSL: No

Section 16 - Other Information

DISCLAIMER

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

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.
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