

IDENTITY: Protriptyline-D₃ in Methanol

SECTION I

Manufacturer: Cerilliant Corporation
811 Paloma Drive, Suite A
Round Rock, TX 78665

Emergency Telephone Number: (512) 238-9974
Date Prepared: June 4, 2012

SECTION II - HAZARDOUS COMPONENTS/IDENTITY INFORMATION

Hazardous Components	Synonyms	CAS Number	%
Methanol	Methyl alcohol, Alcool methylique (french), Alcool metallico (Italian), Carbinol, Colonial spirit, Methanolo (Italian), Methylalkohol (German), Methyl hydroxide, Wood alcohol, Metylowy alkohol (Polish)	67-56-1	99.99
Protriptyline-D ₃	N/A	136765-50-9	0.01

SECTION III – Hazard Identification

Flammable. Highly Flammable (EU). Toxic. Methanol is a human poison by ingestion. Exposure to Methanol may result in severe skin and eye irritation, blindness and narcosis. It can be absorbed through the skin. Target Organs: Eyes, Kidneys.

SECTION IV – First Aid Measures

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Ingestion: Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Skin Contact: Wash off with soap and plenty of water. Consult a physician.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration and transport to a medical facility.

SECTION V- Fire Fighting Measures

Flash Point: 52°F (11°C) (Methanol)

Flammable Limits

Method Used: Closed Cup

LEL: 6.0% **UEL:** 36.5% (Methanol)

Extinguishing Media: Dry chemical or carbon dioxide extinguisher.

Special Fire Fighting Procedures: Wear SCBA and protective clothing to prevent contact with skin and eyes.

Unusual Fire and Explosion Hazards: Flashback along vapor trail may occur.

SECTION VI- Accidental Release Measures

Evacuate area. Remove all sources of ignition. Use inert absorbent to pick up all spilled material. Transfer to a suitable waste container with non-sparking tools. Wash spill site with appropriate cleaning agent to removal residual traces of spilled material.

SECTION VII- Handling and Storage

Handling: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged repeated exposure. Wash thoroughly after handling.

Storage: Refrigerate or Freeze. Keep container closed. Keep away from ignition sources.

SECTION VIII-Exposure Controls/Personal Protection

As appropriate to quantity handled.

Ventilation - Local Exhaust: Use with forced ventilation.

General Mechanical: Normal laboratory air exchange.

Special: N/A

Respiratory Protection: NIOSH approved cartridge type respirator with organic vapor cartridges recommended.

Eye Protection: Safety glasses with side shields or chemical safety goggles.

Protective Gloves: Compatible chemical resistant gloves.

Other Protective Clothing or Equipment: Lab coat

Work/Hygienic Practices: Only experienced personnel should be allowed to handle this material.

Exposure Limits				
	OSHA PEL	ACGIH TLV	DFG MAK	Other Limits
Methanol	TWA 200 ppm STEL 250 ppm	TWA 200 ppm STEL 250 ppm	200 ppm	NIOSH REL TWA 200 ppm CL 800 ppm/15M
Protriptyline-D ₃	N/A	N/A	N/A	N/A

SECTION IX-Physical/Chemical Properties

Boiling Point (degrees C): 64.6 (148°F) (Methanol)

Melting Point (degrees C): -98 (Methanol)

Specific Gravity (Water=1): 0.7913 (Methanol)

Vapor Pressure (mmHg): 97 @ 20°C (Methanol)

Vapor Density (Air=1): 1.11 (Methanol)

Evaporation Rate (Butyl Acetate=1): 5.9 (Methanol)

Solubility in Water: Miscible (Methanol)

Appearance and Odor: Clear, colorless liquid, slight alcoholic odor (Methanol).

SECTION X-Stability and Reactivity

Stability: Stable

Conditions to Avoid: Heat, sparks or other sources of ignition.

Incompatible Materials: Acids, acid chlorides, acid anhydrides, oxidizing agents, reducing agents, and alkali metals

Hazardous Dcmp Pdts: Toxic fumes of carbon monoxide and carbon dioxide.

Hazardous Polymerization: Will not occur

Conditions to Avoid: N/A

SECTION XI-Toxicological Information

Routes of Entry: **Inhalation?** Yes **Skin?** Yes **Ingestion?** Yes
Carcinogenicity: **NTP?** N/A **IARC?** N/A **OSHA?** N/A

Symptoms of Exposure:

Exposure to Methanol may cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting, eye damage, convulsions, fatigue, drowsiness, and central nervous system depression.

Toxicity Data:

Methanol:

oral-man LD₅₀: 6422 mg/kg
 oral-man TD₅₀: 3429 mg/kg
 oral-human LD₅₀: 428 mg/kg
 oral-human LD₅₀: 143 mg/kg
 oral-woman TD₅₀: 4 g/kg mg/kg
 inhalation-human TC₅₀: 86,000 mg/m³
 inhalation-human TC₅₀: 86300 ppm
 intraperitoneal-rat LD₅₀: 7529 mg/kg
 intravenous-rat LD₅₀: 2131 mg/kg
 skin-monkey LD₅₀: 393 mg/kg

The toxicological properties of this formulation have not been fully investigated. It should be assumed to have toxic effects and, therefore, procedures appropriate for the safe handling of hazardous chemicals should be followed.

SECTION XII-Ecological Information

Acute Toxicity Tests

Methanol:

Fish: Onchorhynchus mykiss (Rainbow trout): LC₅₀: 19,000 mg/L/96H
 Fish: Cyprinus carpio LC₅₀: 36,000 mg/L/48H
 Invertebrates: Daphnia magna EC₅₀: 24,500 mg/L/48H
 Invertebrates: Daphnia magna EC₁₀₀: 19,000 mg/L/24H

SECTION XIII-Disposal Considerations

Waste materials should be disposed of under conditions that meet Federal, State, and Local environmental control regulations. Contact a licensed waste disposal specialist to dispose of this material.

SECTION XIV- Transportation Information

DOT Proper Shipping Name: Methanol UN #: 1230 Class: 3 (6.1) Packing Group: II Small quantities excepted	IATA Proper Shipping Name: Methanol UN #: 1230 Class: 3 Packing Group: II Small quantities excepted
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SECTION XV-Regulatory Information

EU Directives Classification

Symbol of Danger: F T

Indication of Danger: Highly Flammable. Toxic.

R: 11-23/24/25-39/23/24/25

Risk Statements:

Highly Flammable. Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

S: 7-16-36/37-45

Safety Statements: Keep container tightly closed. Keep away from sources of ignition-no smoking. Wear suitable protective clothing and gloves. In case of an accident or if you feel unwell, seek medical advice immediately.

California Prop. 65: WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. [Methanol]

SARA 313: Listed

SECTION XVI-Other Information

The information contained herein is believed to be accurate and is supplied in good faith. Cerilliant Corporation makes no warranty with respect to and assumes no legal responsibility for use of or reliance upon this information. Individuals receiving this data must exercise their own judgement in determining its suitability for a particular purpose.