

SAFETY DATA SHEET

Preparation Date: 7/26/2018

Revision Date: 7/26/2018

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: DI127
Product Name: DIMENHYDRINATE, USP

Other means of identification

Synonyms:

N-(2-Diphenylmethoxyethyl)-N,N-dimethylammonium 8-chlorotheophyllinate
(o-Benzhydryl(dimethylamino)ethanol) 8-chlorotheophyllinate
O-Benzhydryldimethylaminoethanol 8-chlorotheophyllinate
Benzhydryl-beta-dimethylaminoethylether 8-chlorotheophylline
2-(Benzhydryloxy)-N,N-dimethylethylamine 8-chlorotheophyllinate
2-(Benzhydryloxy)-N,N-dimethylethylamine compd. with 8-chlorotheophylline
8-Chlorotheophylline, compd. with 2-(diphenylmethoxy)-N,N-dimethylethylamine
(1:1)
beta-Dimethylaminoethyl benzhydryl ether 1,3-dimethyl-8-chloroxanthine
N,N-Dimethyl-2-diphenylmethoxyethylamine 8-chlorotheophyllinate
Diphenhydramine 8-chlorotheophyllinate
Diphenhydramine 8-chlorotheophylline
Diphenhydrinate
2-(Diphenylmethoxy)-N,N-dimethylethylamine 8-chlorotheophyllinate
Dramalen
Dramamin/Dramamine
Dramarin
Dramilin
Dramyl/Dromyl
Ethylamine, N,N-dimethyl-2-(diphenylmethoxy)-, compd. with 8-chlorotheophylline
Ethylamine 2-(diphenylmethoxy)-N,N-dimethyl-, compd with 8-chlorotheophylline
(1:1)
Gravinol
Gravol
1H-Pyrene-2,6-dione, 8-chloro-3,7-dihydro-1,3-dimethyl-, compd. with
2-(diphenylmethoxy)-N,N-dimethylethylamine (1:1)
Theophylline, 8-chloro-, compd with 2-(diphenylmethoxy)-N,N-dimethylethylamine
(1:1)
CAS #: 523-87-5
RTECS # XH5082000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Drug. Antihistamine. Medication. Therapeutic agent.
Uses advised against No information available

Supplier:

Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At: <https://www.spectrumchemical.com>
Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 4
Specific target organ toxicity (single exposure)	Category 3

Label elements

Warning

Hazard statements

Harmful if swallowed

May cause drowsiness or dizziness



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Dimenhydrinate	523-87-5	100

4. FIRST AID MEASURES

First aid measures

- General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. If symptoms persist, call a physician.
- Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. Consult a physician if necessary.
- Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.
- Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

- Symptoms**
- May cause irritation of respiratory tract
 - Dryness of mouth
 - Dry throat
 - Sore throat
 - Sweating and flushing of skin
 - Central nervous system effects
 - May cause drowsiness or dizziness
 - Seizures
 - Insomnia
 - Fatigue
 - Hallucinations
 - Confusion
 - Headache
 - Weakness
 - Difficult/painful and/or frequent urination
 - May affect eyes/vision
 - Blurred vision
 - May affect the cardiovascular system
 - Hypotension
 - Cardiac arrhythmias
 - Heart palpitations
 - Weak, rapid pulse or rapid heart rate (Tachycardia)
 - May cause tingling of hands and feet
 - May cause abdominal pain, nausea, vomiting, diarrhea
 - May cause constipation
 - May cause loss of appetite
 - Dyspnea (Shortness of breath and difficulty breathing)

Indication of any immediate medical attention and special treatment needed

- Notes to Physician:** Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media:

Dry chemical. Carbon dioxide (CO₂). Water spray, mist, or foam.

Unsuitable Extinguishing Media:

No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products:

Carbon Monoxide, Carbon Dioxide. Hydrogen Chloride Gas. Nitrogen Oxides.

Specific hazards:

May be combustible at high temperatures.

Special Protective Actions for Firefighters

Specific Methods:

No information available.

Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up

Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials. Keep away from open flames, hot surfaces and sources of ignition.

Safe Handling Advice

Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe dust. Wear personal protective equipment. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original

container. Store away from incompatible materials.

Incompatible Materials:

- Oxidizing agents
- Peroxides
- Phenols

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Dimenhydrinate	523-87-5	None	None	None	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Dimenhydrinate	523-87-5	None	None	None	None

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Dimenhydrinate	523-87-5	None	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles or Safety glasses with side-shields

Skin and body protection: Chemical resistant apron
Gloves
Lightweight protective clothing

Respiratory protection: Wear respirator with dust filter. or. Effective dust mask.

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wear suitable gloves and eye/face protection. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid	Appearance: Crystalline. Crystalline powder.	Color: White.
Odor: Odorless.	Taste No information available.	Formula: C17H21NO.C7H7CIN4O2
Molecular/Formula weight (g/mole): 469.96 g/mol	Flammability: No information available	Flashpoint (°C/°F): No information available.
Flash Point Tested according to: Not available	Autoignition Temperature (°C/°F): No information available	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Melting point/range(°C/°F): 102-107°C/216-225°F	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): No information available	Bulk density: No information available	Density (g/cm3): No information available
Specific gravity: No information available	pH: 6.8-7.3	Vapor pressure @ 20°C (kPa): No information available
Evaporation rate: No information available	Vapor density: No information available	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): Log Pow -0.39	Viscosity: No information available
Miscibility: No information available	Solubility: Freely soluble in alcohol Freely soluble in Chloroform Soluble in Benzene Soluble in Water Insoluble in Ether	

10. STABILITY AND REACTIVITY

Reactivity

No information available

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Avoid dust formation. Incompatible materials.

Incompatible Materials: Oxidizing agents
Peroxides
Phenols

Hazardous decomposition products: Carbon oxides. Nitrogen oxides (NOx). Hydrogen chloride.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Ingestion. Inhalation.

Acute Toxicity

Component Information

Dimenhydrinate	
CAS-No.	523-87-5

LD50/oral/rat = 1320 mg/kg Oral LD50 Rat
LD50/oral/mouse = 203 mg/kg oral LD50 mouse
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 1320 mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 203 mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation.

Inhalation May cause respiratory irritation.

Ingestion May be harmful if swallowed. May cause loss of appetite. Causes abdominal pain (epigastric distress). Ingestion may cause nausea, vomiting. May cause diarrhea. May cause constipation. May cause dry mouth. May cause central nervous system

effects (affect behavior). May affect behavior/central nervous system (dizziness, headache). It may affect behavior/central nervous system (drowsiness). May affect behavior/central nervous system (lethargy, fatigue). May affect behavior/central nervous system (convulsions/seizures). May affect behavior/central nervous system (hallucinations, insomnia). It may cause twitching or tremors/trembling. May affect behavior/central nervous system (ataxia). May affect behavior/central nervous system (confusion). May affect the cardiovascular system (hypotension). May affect the cardiovascular system (cardiac arrhythmias). May affect the cardiovascular system (palpitations). May affect the cardiovascular system (tachycardia). May cause blurred or foggy vision. May cause tinnitus. May cause tingling, pricking feeling, or numbness in the extremities. May cause weakness. May cause flushing and sweating. May cause difficulty breathing.

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity No information available.

Sensitization: No information available.

Mutagenic Effects: Experiments with bacteria have shown mutagenic effects

Carcinogenic effects: Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Dimenhydrinate	523-87-5	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects: No information available

Developmental Effects: No information available

Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal. Do not re-use empty containers

Dispose of as unused product. Dispose of in accordance with federal, state and local regulations

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Dimenhydrinate	523-87-5	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Class: No information available
Packing group: No information available
Emergency Response Guide Number: No information available
Marine Pollutant: No data available
DOT RQ (lbs): No information available
Special Provisions: No Information available
Symbol(s): No information available
Description: No information available

TDG (Canada)

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Marine Pollutant: No Information available
Description: No information available

ADR

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available

IMO / IMDG

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available

Product code: DI127

Product name: DIMENHYDRINATE,
USP

Packing Group: No information available
Marine Pollutant No information available

RID

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available

ICAO

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available

IATA

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
ERG Code: No information available
Special Provisions No information available

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Dimenhydrinate</i>	523-87-5	Present(ACTIVE)	Present KE-05601	Present	Not present	Not present	Present	Present 208-350-8

U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Dimenhydrinate</i>	523-87-5	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
<i>Dimenhydrinate</i>	523-87-5	None	None	None	None	None

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Dimenhydrinate	523-87-5	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information: The WHMIS 2015 classification of this product has not been validated or reviewed yet.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class

The classification of this product has not been validated yet

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Dimenhydrinate	523-87-5	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Dimenhydrinate	523-87-5	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Dimenhydrinate	523-87-5	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Dimenhydrinate	523-87-5	No information

EU - CLP (1272/2008)

R-phrase(s)

R22 - Harmful if swallowed.

S -phrase(s)

S46 - If swallowed, seek medical advice immediately and show this container or label.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Dimenhydrinate	523-87-5		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Xn - Harmful.

Product code: DI127

Product name: DIMENHYDRINATE,
USP

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Xn



16. OTHER INFORMATION

Preparation Date: 7/26/2018
Revision Date: 7/26/2018
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet