



Safety Data Sheet

Material Name: ABBOTT LABS DIMETHYL SULFOXIDE

SDS ID: 89037

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

ABBOTT LABS DIMETHYL SULFOXIDE

Product Code

Not available.

Synonyms

Sulfinylbismethane, methyl sulfoxide, dimethyl sulphoxide, DMSO

Product Use

Solvent. If this product is used in combination with other products, refer to the Safety Data Sheets for those products.

Restrictions on Use

None known.

Manufacturer Information

Clean Harbors Recycling Services of Chicago LLC
1445 W. 42nd Street
Chicago, IL 60609
www.cleanharbors.com

Phone: 1-773-247-2828

Emergency # 1-800-645-8265

Issue Date

April 15, 2019

Supersedes Issue Date

May 15, 2015

Original Issue Date

July 27, 2009

*** Section 2 - Hazard(s) Identification ***

Classification in Accordance with 29 CFR 1910.1200.

Flammable liquids, Category 4

Skin corrosion/irritation, Category 3

Serious Eye Damage/Eye Irritation, Category 2

GHS LABEL ELEMENTS**Symbol(s)****Signal Word**

WARNING

Hazard Statement(s)

Combustible liquid

Causes mild skin irritation and serious eye irritation.

Precautionary Statement(s)**Prevention**

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling.

Safety Data Sheet

Material Name: ABBOTT LABS DIMETHYL SULFOXIDE

SDS ID: 89037

Response

In case of fire, use water spray, carbon dioxide, dry chemical, or alcohol resistant foam. IF exposed or concerned: Get medical advice/attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Wash with soap and water. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing before reuse. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

Storage

Store in a well-ventilated place. Keep cool.

Disposal

Dispose of in accordance with all applicable federal, state and local regulations.

Hazard(s) Not Otherwise Classified

None.

*** Section 3 - Composition / Information on Ingredients ***

CAS	Component	Percent
67-68-5	Dimethyl Sulfoxide	99-100

*** Section 4 - First Aid Measures ***

Description of Necessary Measures

Inhalation

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

Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Never give anything by mouth to an unconscious person.

Most Important Symptoms/Effects

Acute

Causes serious eye irritation. May cause respiratory irritation.

Delayed

No information on significant adverse effects.

Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

Treat symptomatically and supportively.

*** Section 5 - Fire-Fighting Measures ***

Suitable Extinguishing Media

Use foam, regular dry chemical, carbon dioxide, water spray, alcohol resistant foam.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Safety Data Sheet

Material Name: ABBOTT LABS DIMETHYL SULFOXIDE

SDS ID: 89037

Specific Hazards Arising from the Chemical

Moderate fire hazard. Vapor is heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Vapor/air mixtures are explosive above flash point.

Hazardous Combustion Products

Formaldehyde, methyl mercaptan, sulfur dioxide.

Special Protective Equipment and Precautions for Firefighters

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Apply water from a protected location or from a safe distance. Dike for later disposal.

*** Section 6 - Accidental Release Measures ***

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

Methods and Materials for Containment and Clean Up

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **Section 8**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal. Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

*** Section 7 - Handling and Storage ***

Precautions for Safe Handling

Keep away from heat, sparks, open flame, and hot surfaces - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Do not breathe vapor or mist. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product.

Conditions for Safe Storage, Including Any Incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Keep separated from incompatible substances.

Incompatibilities

Avoid acids, oxidizing agents, combustible materials, reducing agents, halogens, metals, metal salts.

*** Section 8 - Exposure Controls / Personal Protection ***

Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of these products components.

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

Safety Data Sheet

Material Name: ABBOTT LABS DIMETHYL SULFOXIDE

SDS ID: 89037

Appropriate Engineering Controls

Provide general ventilation. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls.

Individual Protective Measures, such as Personal Protective Equipment

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: safety glasses, gloves, lab coats, or apron.

Eyes/Face Protection

Safety glasses with side shields should be worn at a minimum. Additional protection such as goggles, face shields, or respirators may be needed depending upon anticipated use and concentrations of vapor or mists. Provide an emergency eye wash found and quick drench shower in the immediate work area. Contact lens use is not recommended.

Skin Protection

Where skin contact is likely, wear gloves impervious to product; use of natural rubber (latex) or equivalent gloves is not recommended. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant face shield, boots, apron, whole body suits or other protective clothing.

Respiratory Protection

A respiratory protection program which meets USA's OSHA General Industry Standard 29 CFR 1910.134 or Canada's CSA Standard Z94.4-M1982 requirements must be followed whenever workplace conditions warrant a respirator's use. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.

*** Section 9 - Physical & Chemical Properties ***

Appearance/Odor :	Clear, colorless liquid	pH:	Not available.
Odor Threshold:	Nearly odorless.	Boiling Point:	372.2° F (189°C)
Melting Point:	Not available	Solubility (H₂O):	Complete
Specific Gravity:	1.1 (water=1)	Density:	Not available
Octanol/H₂O Coeff.:	-1.35	Evaporation Rate:	Not available.
Molecular Weight:	Not applicable.	Auto Ignition Temperature:	419F 215°C)
LFL:	2.6	Flash Point:	192.2°F (89°C)
UFL:	42	Viscosity:	Not available.
Vapor Pressure:	0.4 mmHg @20°C (68°F)		
Vapor Density:	2.7 (air = 1)		

Other Property Information

No information is available.

*** Section 10 - Stability & Reactivity ***

Reactivity

No reactivity hazard is expected.

Chemical Stability

Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions

Polymerization is not known to occur under normal temperature and pressures.

Conditions To Avoid

Avoid heat, sparks or flame when not in use. Avoid contact with incompatible materials. Containers may rupture or explode if exposed to heat.

Safety Data Sheet

Material Name: ABBOTT LABS DIMETHYL SULFOXIDE

SDS ID: 89037

Incompatible Materials

Avoid oxidizing agents, acids, combustible materials, reducing agents, halogens, metals, metal salts.

Hazardous Decomposition Products

Formaldehyde, methyl mercaptan, sulfur dioxide.

*** Section 11 - Toxicological Information ***

Information on Likely Routes of Exposure

Inhalation

May cause respiratory irritation.

Skin Contact

No information on significant adverse effects.

Eye Contact

Causes serious eye irritation, redness, blurred vision, tearing.

Ingestion

Ingestion of large amounts may cause nausea, vomiting, diarrhea, abdominal pain, lethargy, and drowsiness.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Dimethyl sulfoxide (67-68-5)

Oral LD50 Rat 28300 mg/kg; Inhalation LC50 Rat >5.33 mg/L 4 h (no deaths occurred)

Product Toxicity Data

Acute Toxicity Estimate

Oral	> 2000 mg/kg
------	--------------

Immediate Effects

Causes serious eye irritation.

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

Causes serious eye irritation.

Respiratory Sensitization

Based on best current information, there is no known human sensitization associated with this product.

Dermal Sensitization

Based on best current information, there is no known human sensitization associated with this product.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA.

Germ Cell Mutagenicity

No information available for the product.

Tumorigenic Data

No data available

Reproductive Toxicity

No information available for the product.

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

No information on significant adverse effects.

Medical Conditions Aggravated by Exposure

No information available.

Additional Data

No additional information is available.

Safety Data Sheet

Material Name: ABBOTT LABS DIMETHYL SULFOXIDE

SDS ID: 89037

*** Section 12 - Ecological Information ***

Component Analysis - Aquatic Toxicity

Dimethyl sulfoxide	67-68-5
Fish:	LC50 96 h Pimephales promelas 34000 mg/L; LC50 96 h Oncorhynchus mykiss 33 - 37 g/L [static]; LC50 96 h Lepomis macrochirus >40 g/L [static]; LC50 96 h Cyprinus carpio 41.7 g/L

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No additional information is available.

*** Section 13 - Disposal Considerations ***

Disposal Methods

Dispose of in accordance with all applicable federal, state and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Clean Harbors regarding proper recycling or disposal.

*** Section 14 - Transport Information ***

US DOT Information:

Shipping Name: FLAMMABLE LIQUIDS, N.O.S. , (Contains: DIMETHYL SULFOXIDE)

Hazard Class: 3

UN/NA #: UN1993

Packing Group: III

Required Label(s): 3

IATA Information: Not regulated for transport.

IMDG Information: Not regulated for transport.

TDG Information: Not regulated for transport.

International Bulk Chemical Code

This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

*** Section 15 - Regulatory Information ***

U.S. Federal Regulations

None of this product's components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

Flammable; Serious Eye Damage/Eye Irritation; Specific Target Organ Toxicity

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Dimethyl sulfoxide	67-68-5	No	No	No	Yes	No

Safety Data Sheet

Material Name: ABBOTT LABS DIMETHYL SULFOXIDE

SDS ID: 89037

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

Not listed under California Proposition 65.

Component Analysis - Inventory

Dimethyl sulfoxide (67-68-5)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

***** Section 16 - Other Information *****

NFPA Ratings: Health: 2 Fire: 2 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Summary of Changes:

Regulatory review and update.

Key/Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Disclaimer

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However Clean Harbors assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information or the product to which the information refers. The data contained on this sheet apply to the product as supplied to the user.