

# DM Healthcare Products, Inc.

## Material Safety Data Sheet

Revised Date: 02/20/15  
Replaces Date: New

MSDS ID: H1206

### 1. Product and Company Information

Product Code: H1206  
Product Description: PMGDM (50%) in Acetone  
Product Category: Dental Materials Adhesion Promoter

Company: DM Healthcare Products, Inc.  
10080 Willow Creek Rd.  
San Diego, CA 92131

Telephone: 858-348-1122

Emergency phone number (spill, leak, fire, exposure or accident):  
US Domestic 800-424-9300 (CHEMTREC)  
International +1 703-527-3887

### 2. Hazards Identification

#### EMERGENCY OVERVIEW:

Appearance/Odor: Clear, slightly yellow liquid with a characteristic mint-like odor.

DANGER – Highly flammable liquid and vapor. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact. Repeated exposure may cause skin dryness or cracking. Vapors may cause drowsiness and dizziness.  
Unstable/Reactive upon depletion of inhibitor.

#### PRIMARY ROUTES OF ENTRY:

Inhalation, eye and skin.

#### PHYSICAL HAZARDS:

Highly flammable liquid and vapor. Vapors may cause flash fire. May form explosive vapor-air mixtures. Unstable/Reactive upon depletion of inhibitor.

#### ACUTE HEALTH HAZARDS: See § 11 for more information

**INHALATION:** Irritates the respiratory tract and affects the Central Nervous System. May cause coughing, dizziness, dullness and headache. High concentrations can produce narcosis and unconsciousness.

**EYE CONTACT:** Vapor and liquid cause irritation, redness and pain.

**SKIN CONTACT:** Brief contact may cause irritation with itching and local redness. Repeated and/or prolonged contact may cause drying and cracking of skin.

**SWALLOWING:** Swallowing large quantities causes headaches, nausea, and vomiting. Large quantities may also cause unconsciousness and central system depression. May also cause liver and kidney injury.

#### CONDITIONS AGGRAVATED BY EXPOSURE:

Pre-existing eye and skin disorders, impaired liver, kidney or respiratory functions may be more susceptible to effects of this material. The use of alcoholic beverages enhances toxic effects.

#### CHRONIC HEALTH HAZARDS:

Prolonged or repeated exposure or breathing very high concentrations may cause headaches, nausea, vomiting, dizziness, central nervous system depression, narcosis, convulsions, and in extreme cases, unconsciousness and death.

# DM Healthcare Products, Inc.

## Material Safety Data Sheet

MSDS ID: H1206

Revised Date: 02/20/15  
Replaces Date: New

### TARGET ORGANS:

For Acetone: Liver, kidneys and central nervous system.

### CARCINOGENICITY:

None of the components of the material are listed by IARC, NTP, OSHA , or ACGIH as carcinogens

### OSHA:

This material is considered Hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### POTENTIAL ENVIRONMENTAL IMPACT:

See § 12 for more information. This product is known to be harmful to aquatic life and is not expected to persist in the environment.

## 3. Hazardous Component Identification

COMPONENT	CAS#	CONCENTRATION
Acetone	67-64-1	40 – 60%

## 4. First Aid Measures

**EYE CONTACT:** Flush with water for 15 minutes. If irritation occurs, contact a physician.

**SKIN CONTACT:** Wash area with soap and water. Remove contaminated clothing and shoes. Wash or clean before reuse. If irritation, redness or swelling persists, contact a physician immediately.

**INHALATION:** Remove person to fresh air. If breathing has stopped, perform artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**INGESTION:** Do not induce vomiting. Give person large amounts of water or milk IMMEDIATELY. Get immediate medical attention.

### NOTES TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

## 5. Fire and Explosion Hazard Data

### FLAMMABLE LIQUID

**FLASH POINT (method):** -20°C (-4°F), based on acetone – closed cup

**EXTINGUISHER METHOD:** CO<sub>2</sub>, foam, dry chemical

**UPPER FLAMMABLE LIMIT:** 12.8% (based on acetone)

**LOWER FLAMMABLE LIMIT:** 2.5% (based on acetone)

**AUTO-IGNITION TEMPERATURE:** Not available

**HAZARDOUS COMBUSTION PRODUCTS:** Oxides of carbon

**EXPLOSION DATA:** Not available

### SPECIAL FIRE-FIGHTING PROCEDURES:

Fire fighters should wear NIOSH/MSHA approved pressure demand self-contained breathing apparatus. Decontaminate or discard any clothing that may contain chemical residues.

# DM Healthcare Products, Inc.

## Material Safety Data Sheet

MSDS ID: H1206

Revised Date: 02/20/15  
Replaces Date: New

### UNUSUAL FIRE AND EXPLOSION HAZARDS:

Do not enter fire area without proper protection. See Section 10, Reactivity Data, for decomposition products possible. Fight fire from safe distance and protected location. Heat/impurities may increase temperature/build pressure/rupture closed containers, spreading fire, increasing risk of burns/injuries. Water may be ineffective in firefighting due to low solubility. Use water spray/fog for cooling. Pressure relief system may plug with solids, increasing risk of overpressure.

### SENSITIVE TO STATIC DISCHARGE:

Yes.

## 6. Accidental Release Measures

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Promptly absorb spill. Remove sources of ignition. Cover drains to prevent entry into waterways. Wear personal protective equipment (clothing and gloves) when handling spilled materials.

### PERSONAL PRECAUTIONS:

Before cleaning any spill or leak individuals involved must wear suitable protective equipment that is specified in § 8.

### ENVIRONMENTAL PRECAUTIONS:

Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.

### METHOD FOR CLEAN-UP:

Maximize ventilation and secure all sources of ignition. Use good, local ventilation with a minimum capture velocity of 100 ft/min at point of monomer release. Place into appropriate closed container(s) for disposal in accordance with local, state and federal regulations. Wash all affected areas with plenty of warm water and soap.

## 7. Handling and Storage

**HANDLING:** Keep away from heat, sparks and flame. Keep container closed after each use. Avoid contact with skin, eyes and clothing. Use good personal hygiene and housekeeping.

**STORAGE:** Store containers in a cool (room temperature), dry location, away from direct sunlight, heat sparks, flame and other light sources, or sources of intense heat. Maintain 2" headspace in the product container and do not blanket or mix with oxygen-free gas as it renders the inhibitor ineffective.

## 8. Exposure Controls and Personal Protection Measures

COMPONENT	EXPOSURE LIMITS				
	ACGIH		OSHA		MFG Working Standard
	TLV-TWA	TLV-STEL	PEL TWA	PEL CEILING	
Acetone	500 ppm	750 ppm	1000 ppm	Not Established	500 ppm
H1206	----- Not Established -----				

### PERSONAL PROTECTION:

Respiratory: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use. If a respirator is used, a NIOSH/MSHA approved respirator with organic vapor/dust-mist fume filters represents the minimum level of respiratory protection.

Hands: Solvent impermeable gloves.

Eyes: Chemical safety goggles.

Skin: Chemical-resistant clothing.

### OTHER PROTECTIVE EQUIPMENT:

# DM Healthcare Products, Inc.

## Material Safety Data Sheet

MSDS ID: H1206

Revised Date: 02/20/15  
Replaces Date: New

Wear protective clothing.

### ENGINEERING CONTROLS:

Use local exhaust at processing equipment. High temperature processing equipment should be well ventilated.

## 9. Physical / Chemical Characteristics

### APPEARANCE:

Physical State:	Low Viscosity Liquid
Color:	Clear, slightly yellow
Odor:	Characteristic mint-like
Odor Threshold:	13 ppm (acetone)

### OTHER PROPERTIES:

Specific Gravity (H <sub>2</sub> O=1):	~0.98 @ 25° C
Vapor Pressure:	22 mmHg @ 20° C (acetone)
Vapor Density (Air-1):	2.0 (acetone)
Evaporation rate (BuAc=1):	~ 7.7 (acetone)
Boiling Point:	56°C, 133°F @ 760 mm Hg (acetone)
Freezing Point:	Not determined
pH:	Not applicable
Coefficient of water/oil dist.	Not available
Solubility in water:	Miscible
Percent volatile (weight):	50%

## 10. Stability and Reactivity

### STABILITY:

Unstable/Reactive upon depletion of inhibitor.

### CONDITIONS TO AVOID:

Heat, open flames, sparks, static electricity, other sources of ignition, sunlight, UV radiation, moisture, oxidizing conditions, freezing conditions, inert gas blanketing.

### INCOMPATIBLE MATERIALS:

Contact with strong oxidizing agents, strong reducing agents, strong alkalis, or strong acids may cause fire and explosions. May attack some forms of plastics, rubbers and coatings., free radical initiators, inert gases, oxygen scavengers.

### HAZARDOUS DECOMPOSITION PRODUCTS:

Acrid smoke-fumes/carbon monoxide/carbon dioxide and perhaps other toxic vapors may be released during a fire involving this product.

### HAZARDOUS POLYMERIZATION:

May occur

## 11. Toxicological Information

### TARGET ORGANS:

(Acetone) Liver, Kidney, and Central Nervous System

### MUTAGENICITY DATA:

(Acetone) Acetone is not reported to produce mutagenic effects in humans

### REPRODUCTIVE TOXICITY DATA:

**Embryotoxicity:** This product is not reported to produce embryotoxic effects in humans.

**Teratogenicity:** This product is not reported to produce teratogenic effects in humans.

**Reproductive Toxicity:** Acetone is not reported to produce reproductive effects in humans.

### CARCINOGENICITY:

None of the components of this material are listed by IARC, NTP, OSHA, or ACGIH as carcinogens.

# DM Healthcare Products, Inc.

## Material Safety Data Sheet

MSDS ID: H1206

Revised Date: 02/20/15  
Replaces Date: New

**TOXICITY DATA:** This product has not been tested on animals to obtain toxicology data. There are toxicology data for a component of the product that can be found on scientific literature.

### 12. Ecological Information

There are no specific data available for this product; however, very large releases of this product may be harmful or fatal to exposed aquatic life. There are ecological data for one of the components of this product which are found in the scientific literature. Some of these data are presented below.

**AQUATIC TOXICITY:** For Acetone: Acetone is not considered harmful to aquatic organisms.

Daphnia magna (water flea)	LC <sub>50</sub>	12,600 mg/L, 48H
Oncorhynchus mykiss (rainbow trout)	LC <sub>50</sub>	5,540 mg/L, 96H, static
Pimephales promelas (Fathead minnow)	LC <sub>50</sub>	6,210 mg/L, 96H, flow-through

**ENVIRONMENTAL FATE:** For Acetone: Acetone is not expected to persist in the environment.

### 13. Disposal Considerations

**WASTE DISPOSAL METHOD:** Disposal should be in accordance with local, state or national legislation.

**EMPTY CONTAINER WARNINGS:** Empty containers may contain product residue, follow MSDS and label warnings even after they have been emptied.

### 14. Transport Information

**US DOT CLASSIFICATION:** UN1993 Flammable Liquid N.O.S. (Acetone), Class 3, Group II

**IATA CLASSIFICATION:** UN1993 Flammable Liquid N.O.S. (Toluene), Class 3, Group II

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized safety officer. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

### 15. Regulatory Information

**“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.”**

**CANADIAN DSL/NDSL:** Not listed.

**WHMIS HAZARD CLASS:** B2, D2B

**CALIFORNIA PROPOSITION 65:** This product contains the following chemicals that are known to the State of California to cause cancer, birth defects or other reproductive harm.

Component	CAS Number
None	

**TSCA INVENTORY STATUS:** All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

# DM Healthcare Products, Inc.

## Material Safety Data Sheet

MSDS ID: H1206

Revised Date: 02/20/15  
Replaces Date: New

<b>SARA 313 TOXIC CHEMICALS:</b>	<b>Component</b>	<b>CAS Number</b>
	None	
<b>R Phrases:</b>	R 11 – Highly Flammable	
	R 36/37/38 Irritating to eyes, respiratory system and skin	
	R43 – May cause sensitization by skin contact.	
	R66 – repeated exposure may cause skin dryness or cracking.	
	R67 – Vapors may cause drowsiness or dizziness.	
<b>S Phrases:</b>	S3 – Keep in a cool place	
	S7/9 – Keep container tightly closed and in a well-ventilated places.	
	S16 – Keep away from sources of ignition – No smoking	
	S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.	
	S37/39 – Wear suitable gloves and eye/face protection.	

## 16. Other Information

### HAZARDOUS MATERIAL IDENTIFICATIONS SYSTEM (HMIS) RATING:

Health:	1
Flammability:	3
Reactivity:	1
Personal Protection:	Gloves and safety glasses or chemical splash goggles

### NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD IDENTIFICATION RATING:

Health:	1
Flammability:	3
Reactivity:	1

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgments of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. While that data contained herein is factual, it should not be taken as warranty or representation for which the company assumes legal responsibility. It is offered solely for your consideration, investigation and verification. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.