



Safety Data Sheet

Safety Data Sheet conforms to Regulation (EC) 1907/2006,
Regulation (EC) 1272/2008 and Regulation (EC) 2015/830,
US 29CFR1910.1200, Canada Hazardous Products
Regulation

Date Issued: 5 September 2002
Document Number: 204
Date Revised: 15 April 2019
Revision Number: 8

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier:

Trade Name (as labeled): PermaSoft® Denture Liner Sealer
Part/Item Number: N811000, N811100, N811500, N812000, N812100,
N812500, N816002, N816005

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:

Recommended Use: Denture Liner Sealant
Restrictions on Use: For Professional Use Only

1.3 Details of the Supplier of the Safety Data Sheet:

Manufacturer/Supplier Name: Myerson LLC
Manufacturer/Supplier Address: 5106 North Ravenswood
Chicago, IL 60640
Manufacturer/Supplier Telephone Number: 800-423-2683
Email address: orders@myersontooth.com

1.4 Emergency Telephone Number:

Emergency Contact Telephone Number: 800-423-2683

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture:

GHS Classification:		
Health	Environmental	Physical
Eye Irritant Category 2 (H319) Specific Target Organ Toxicity- Single Exposure Category 3 (H336)	Not Hazardous	Flammable Liquid Category 2 (H225)

2.2 Label Elements:



Signal Word: Danger

Contains: Methyl Ethyl Ketone

Hazard Phrases	Precautionary Phrases
H225 Highly flammable liquid and vapor. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.	P210 Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment P241 Use explosion-proof electrical, ventilating and lighting equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing mist, vapors, or spray. P264 Wash thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves, eye protection and face protection. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical attention. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 Call a POISON CENTER or doctor if you feel unwell. P370 + P378 In case of fire: Use carbon dioxide, alcohol foam or dry chemical to extinguish. P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. P501 Dispose of contents and container in accordance with local and national regulations.

2.3 Other Hazards: None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture:

Hazardous Components	C.A.S. #	EINECS # / REACH Registration #	Classification	WT %
Methyl Ethyl Ketone (2-butanone)	78-93-3	201-159-0 /	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	70-95

Polymer	Proprietary	Proprietary	Not Applicable	5-30
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The exact concentration is being withheld as a trade secret.

Refer to Section 16 for the full text of the GHS Classifications.

4. FIRST AID MEASURES

4.1 Description of First Aid Measures:

Eye	Immediately flush eyes with large quantities of water for at least 15 minutes, while holding the eyelids apart. Get medical attention if irritation persists.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water. If irritation or symptoms develop, get medical attention. Launder clothing before re-use.
Inhalation	Remove victim to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention if breathing is difficult or irritation persists.
Ingestion	If small quantities are swallowed, rinse out mouth with water. Do not induce vomiting unless directed to do so by a medical professional. Get medical attention if symptoms develop or if you feel unwell.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed:

Causes eye irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects such as headache, dizziness, drowsiness, nausea and unconsciousness. Prolonged and/or repeated overexposure may cause nervous system damage.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed:

Immediate medical attention is not required.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media: Use water spray, carbon dioxide, alcohol foam or dry chemical.

5.2 Special Hazards Arising from the Substance or Mixture:

This product is highly flammable and forms explosive mixtures with air. Vapors are heavier than air and will travel along surfaces to remote ignition sources and flash back. Closed containers may explode if exposed to extreme heat. Decomposition may release carbon monoxide, carbon dioxide and unidentified organics.

5.3 Advice for Fire-Fighters:

Fire Fighting Procedures/Precautions for Fire Fighters:	Use water to cool exposed containers and structures and disperse flammable vapors. Firefighters should wear full emergency equipment and an approved positive pressure self-contained breathing apparatus.
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6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Evacuate spill area and keep unprotected personnel away. Remove all sources of ignition. Avoid breathing vapors or mists. Ventilate area with explosion proof equipment. Avoid contact with eyes. Avoid prolonged contact with skin and clothing. Wear appropriate protective clothing as described in Section 8. If spill has not ignited, use water spray to disperse the vapors and protect personnel attempting to stop leak.

6.2 Environmental Precautions:

Do not allow spills to enter sewers, waterways or the environment. Report releases as required by local, state and federal authorities.

6.3 Methods and Material for Containment and Cleaning up:

Eliminate all ignition sources. Contain and collect using inert absorbent materials and place in appropriate containers for disposal. Use non-sparking tools and equipment.

6.4 Reference to Other Sections:

Refer to Section 8 for Personal Protective Equipment and Section 13 for Disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Avoid contact with eyes. Avoid prolonged contact with skin and clothing. Avoid breathing vapors or mists. Wear protective clothing and equipment as described in Section 8. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep product away from heat, sparks, flames and all other sources of ignition. Do not permit smoking in use or storage areas. Use with non-sparking tools and explosion proof equipment. Electrically bond and ground containers for transfer.

Do not cut, drill, grind or weld on or near containers, even empty containers. Empty containers retain product residues can be hazardous. Follow all SDS precautions when handling empty containers.

7.2 Conditions for Safe Storage, Including Any Incompatibilities: Store in accordance with regulations for the storage of flammable liquids. Store in a dry, well-ventilated area away from heat, direct sunlight and all sources of ignition. Store away from oxidizers and other incompatible materials.

7.3 Specific End Use (s): For professional use only.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Occupational Exposure Limits:

Methyl Ethyl Ketone	200 ppm TWA, 300 ppm STEL ACGIH TLV
	200 ppm TWA OSHA PEL
	200 ppm TWA, 200 ppm STEL DFG MAK (skin)
	200 ppm TWA, 300 ppm STEL UK WEL
	200 ppm TWA, 300 ppm STEL Belgium OEL
	200 ppm TWA, 300 ppm STEL EU OEL
Polymer	None Established

Biological Exposure Limits:

Methyl Ethyl Ketone: Methyl ethyl ketone in urine, End of shift, 2 mg/L.

8.2 Exposure Controls:**Appropriate Engineering Controls:** Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits. Use explosion-proof equipment where required**Individual Protection Measures (PPE):****Specific Eye/face Protection:** Chemical splash goggles recommended.**Specific Skin Protection:** Wear impervious gloves such as butyl rubber to avoid prolonged skin contact. Clothing with long sleeves may be needed when working with large quantities.**Specific Respiratory Protection:** None should be needed for normal use. If the exposure limits are exceeded an approved organic vapor respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with applicable regulations and good industrial hygiene practice.**Specific Thermal Hazards:** None required**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on Basic Physical and Chemical Properties:**

Appearance:	Colorless liquid	Explosive limits:	LEL: 1.4% (Methyl Ethyl Ketone) UEL: 11.4% (Methyl Ethyl Ketone)
Odor:	Characteristic sweetish odor	Vapor pressure (mmHg):	77.5 mmHg @ 68°F (20°C)
Odor threshold:	Not available	Vapor density: (Air = 1)	2.5
pH:	Not available	Relative density:	0.80
Melting/freezing point:	-123°F (-86°C)	Solubility(ies):	29 g/100 mL
Initial boiling point and boiling range:	176°F (80°C)	Partition coefficient: n-octanol/water:	Not available
Flash point:	23°F (-5°C)	Auto-ignition temperature:	Not available
Evaporation rate: (n-BuAc = 1)	Not available	Decomposition temperature:	Not available
Flammability (solid, gas):	Not applicable	Viscosity:	Not available
Explosive Properties:	Vapors may be explosive in confined areas.	Oxidizing Properties:	None

9.2 Other Information: None available.**10. STABILITY AND REACTIVITY****10.1 Reactivity:** None known.

10.2 Chemical Stability: Stable under normal conditions. Reacts with strong oxidizing agents.

10.3 Possibility of Hazardous Reactions: Methyl Ethyl Ketone may react violently with strong oxidants and inorganic acids causing fire and explosion hazard. Methyl Ethyl Ketone can attack some plastic.

10.4 Conditions to Avoid: Keep away from heat, sparks and all ignition sources.

10.5 Incompatible materials: Avoid oxidizing agents, inorganic acids, copper, hydrogen peroxide, chloroform and halogens.

10.6 Hazardous Decomposition Products: Decomposition may release carbon monoxide, carbon dioxide and unidentified organics.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Potential Health Effects:

Eyes: Contact may cause irritation with redness, tearing and stinging.

Skin: Prolonged contact may cause irritation with redness, itching and pain. The liquid may be absorbed through the skin causing effects similar to those described under inhalation and ingestion.

Ingestion: Ingestion may cause mucous membrane and gastrointestinal irritation and nervous system depression with symptoms of headache, dizziness, abdominal pain, nausea, vomiting and unconsciousness.

Inhalation: Inhalation of vapors may cause mucous membrane and respiratory irritation and central nervous system depression with symptoms of headache, dizziness, drowsiness, fatigue, nausea, shortness of breath, confusion, and unconsciousness.

Chronic Health Effects: Prolonged occupational overexposure may cause defatting of the skin, dermatitis and damage to the nervous system. Methyl ethyl ketone has been found to cause adverse reproductive effects and/or birth defects in studies with laboratory animals.

Irritation: Methyl ethyl ketone: Irritating to rabbit eyes. Not irritating to rabbit skin.

Corrosivity: No data available. This product is not expected to be corrosive.

Sensitization: No data available. This product is not expected to cause sensitization.

Carcinogenicity: None of the components of this product are listed as carcinogens by OSHA, IARC, NTP, ACGIH or the EU CLP.

Mutagenicity: Methyl ethyl ketone: Mutagenicity studies on MEK. The test systems comprised the Salmonella/microsome (Ames) assay, the L5178/TK+/- mouse lymphoma (M/L) assay, the BALB/3T3 cell transformation (CT) assay, unscheduled DNA synthesis (UDS) and the micronucleus test. MEK was not found to be genotoxic in these assays.

Aspiration Hazard: Not an aspiration hazard

Acute Toxicity Data:

Methyl ethyl ketone: Oral rat LD50-2193 mg/kg; Dermal rabbit LD50- >8000 mg/kg; Inhalation rat LC50- > 5000 ppm/6 hr.

Reproductive Toxicity Data: Methyl ethyl ketone has been found to cause adverse reproductive effects and/or birth defects in studies with laboratory animals.

Specific Target Organ Toxicity Single Exposure (STOT-SE): Methyl ethyl ketone: CNS depression/ and other nerve dysfunctions. The common symptoms of short term exposure are fatigue, headache, nausea, sleep disturbance, and alteration in memory. Psychomotor performance of adverse effects on intellectual or memory functions are demonstrated with psychological test batteries after long-term occupational exposure to organic solvents.

Specific Target Organ Toxicity Repeated Exposure (STOT-RE): Methyl ethyl ketone: Male and female Fischer 344 rats were exposed to 0, 1250, 2500, or 5000 ppm methyl ethyl ketone (MEK) vapors 6 hr/day, 5 day/wk. for 90 days. The 90 day exposures had no adverse effect on the clinical health or growth of male or female rats except for a depression of mean body wt. in the 5000 ppm exposure group. The 5000 ppm animals had a slight but significant increase in liver weight, liver weight/body weight ratio, and liver weight/brain weight ratio at necropsy.

12. ECOLOGICAL INFORMATION

12.1 Toxicity:

Methyl ethyl ketone: 96hr LC50 Fathead minnow- 2993 mg/L; 48hr EC50 Daphnia magna- 308 mg/L

12.2 Persistence and Degradability: Methyl ethyl ketone (MEK) is readily oxidized by microorganisms in activated sludge following selection and/or adaptation, with over 80% being removed in 24 hr.

12.3 Bio-accumulative Potential: Methyl ethyl ketone: An estimated BCF of 3 was calculated in fish for methyl ethyl ketone, using a log Kow of 0.29 and a regression-derived equation. According to a classification scheme, this BCF suggests the potential for bio concentration in aquatic organisms is low.

12.4 Mobility in Soil: Methyl ethyl ketone is expected to have very high mobility in soil.

12.5 Results of PBT and vPvB Assessment: Not required

12.6 Other Adverse Effects: None known.

13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Waste Treatment Recommendations: Treat in accordance with national and local regulations.

14. TRANSPORT INFORMATION

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
DOT	UN1193	Methyl Ethyl Ketone	3	II	No
ADR/RID	UN1193	Methyl Ethyl Ketone	3	II	No
IMDG	UN1193	Methyl Ethyl Ketone	3	II	No
IATA/ICAO	UN1193	Methyl Ethyl Ketone	3	II	No

14.6 Special Precautions for User: Not applicable.

14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable - product is transported only in packaged form.

15. REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture:

U.S. Federal Regulations

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): This product has a Reportable

Quantity (RQ) of 5,263 lbs. (based on the RQ for Methyl Ethyl Ketone of 5,000 lbs present at 75-95%). Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

Toxic Substances Control Act (TSCA): This product is a medical device and not subject to chemical notification.

Clean Water Act (CWA): This material is not regulated under the Clean Water Act.

Clean Air Act (CAA): This material is not regulated under the Clean Air Act

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Section 311/312 (40 CFR 370) Hazard Categories: See OSHA Hazard Classification in Section 2.

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372): None.

State Regulations

California: This product contains the following substances known to the state of California to cause cancer and/or reproductive toxicity: Acetaldehyde (<83.6 ppm), Vinyl Chloride (<83.6 ppm).

International Regulations

Canadian Environmental Protection Act: This product is a medical device and not subject to chemical notification requirements.

European Inventory of Existing Chemicals (EINECS): This product is a medical device and not subject to chemical notification requirements.

EU REACH: This product is a medical device and not subject to chemical notification requirements.

Australian Inventory of Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

China Inventory of Existing Chemicals and Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

Korean Existing Chemicals List: This product is a medical device and not subject to chemical notification requirements.

Philippine Inventory of Chemicals and Chemical Substances: This product is a medical device and not subject to chemical notification requirements.

15.2 Chemical Safety Assessment: None required.

16. OTHER INFORMATION

HMIS Hazard Rating:

Health – 2 Flammability – 3 Physical Hazard – 0

Full text of Classification abbreviations used in Section 2 and 3:

Flam. Liq. 2 Flammable Liquid Category 2

Eye Irrit. 2A Eye Irritant Category 2A

STOT SE 3 Specific Target Organ Toxicity Single Exposure Category 3

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Supersedes: 20 November 2017

Date Updated: 15 April 2019

Revision Summary: Changes to Section 2.

Data Sources: US NLM ChemID Plus and HSDB, Substance SDS for components, ECHA REACH Registration Website, Country websites for occupational exposure limits.