Palmer Mirro-Mastic ®

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024 and the Hazardous Products Regulations (HPR) WHMIS 2022
Issue date: 2021-12-23 Revision date: 2025-06-30 Version: 2.0

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Product name : Palmer Mirro-Mastic ®
Product code : Not available.

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Mirror Adhesive.

1.4. Supplier's details

Manufacturer
Palmer Products Corporation
146 St. Matthews Avenue
Louisville, KY, 40207 - USA
T 502.893.3668 Toll-Free: 800.431.6151
palmer@mirro-mastic.com

1.5. Emergency phone number

Emergency number : Medical Emergency Phone Number (CHEMTREC): 1-800-424-9300 (24 Hours),
Transport Emergency Phone Number (CHEMTREC): 1-800-424-9300 (24 Hours)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

GHS classification

Flammable liquids, Category 4

2.2. Label elements

GHS labelling

Signal word (GHS) : Warning
Hazard statements (GHS) : Combustible liquid
Precautionary statements (GHS) : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Wear protective gloves, protective clothing, eye and face protection.
Store in a well-ventilated place.
Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

Not applicable

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%Weight
Asphalt, oxidized	Asphalt, oxidized Asphalt, oxidized (A complex black solid obtained by blowing air through a heated residuum, or raffinate from a deasphalting process with or without a catalyst. The process is principally one of oxidative condensation which increases the molecular weight.) / Bitumens, oxidized / Oxidized asphalt / Asphalt, oxidized (petroleum)	CAS-No.: 64742-93-4	30 - 60
Naphtha, petroleum, hydrotreated heavy	Naphtha, petroleum, hydrotreated heavy Naphtha (petroleum), hydrotreated heavy / Naphtha, (petroleum), hydrotreated heavy / Hydrotreated heavy naphtha / Isopar 350 / White spirit type 3 / Aliphatic oil / Synthetic isoparaffin, C6-13 / C10-12 ALKANE/CYCLOALKANE / Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha / Naphtha, petroleum, hydrotreated, heavy / Ligroine (petroleum), hydrotreated heavy / Hydrocarbons, C9-11, n-alkanes, isoalkanes, cyclics, < 2% aromatics / Naphtha (petroleum), hydrotreated heavy; Low boiling point ydrogen treated naphtha [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C13 and boiling in the range of approximately 65°C to 230°C (149°F to 446°F).] / c9-11 alkane/cycloalkane / Naphtha (petroleum), hydrotreated heavy predominantly C6-13 / Naphtha (petroleum), hydrotreated heavy - low boiling point hydrogen treated naphtha / Naphtha, petroleum, hydrotreated heavy (A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C6-13 and boiling in the range of approximately 65-230°C.) / Naphtha (petroleum), hydrotreated heavy - low boiling point thermally cracked naphtha / Hydrotreated heavy naphtha (petroleum)	CAS-No.: 64742-48-9	10 - 30
Kaolin	Kaolin KAOLIN / Kaolin clay / Hydrated aluminium silicate / Hydrated silicates of aluminium / Hydrous alum silicates	CAS-No.: 1332-58-7	10 - 30

Name	Chemical name / Synonyms	Product identifier	%Weight
Microcrystalline cellulose	Microcrystalline cellulose / CELLULOSE / Cellulose, microcrystalline / MICROCRYSTALLINE CELLULOSE	CAS-No.: 9004-34-6	5 - 10

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : If skin irritation occurs: Wash skin with plenty of water. Get medical advice/attention if you feel unwell.

First-aid measures after eye contact : 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.

First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : May cause skin irritation. Repeated exposure may cause skin dryness or cracking.

Symptoms/effects after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5 Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Powder, water spray, foam, carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : Combustible liquid. Products of combustion may include, and are not limited to: oxides of carbon.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges.

For non-emergency personnel

No additional information available

For emergency responders

Environmental precautions : Prevent entry to sewers and public waters.

6.2. Methods and materials for containment and cleaning up

For containment : Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate personal protection equipment (PPE).

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from sources of ignition - No smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.

Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Keep cool.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Microcrystalline cellulose (9004-34-6)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Cellulose
ACGIH® TLV® TWA	10 mg/m³
Remark (ACGIH)	TLV® Basis: URT irr
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Limits	
Local name	Cellulose
OSHA PEL TWA	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - NIOSH - Occupational Exposure Limits	
Local name	Cellulose
NIOSH REL TWA	10 mg/m³ (total dust) 5 mg/m³ (respirable dust)

Microcrystalline cellulose (9004-34-6)	
NIOSH REL 10h TWA	10 mg/m³ (Total dust) 5 mg/m³ (Respirable fraction)
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))

Kaolin (1332-58-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Kaolin
ACGIH® TLV® TWA	2 mg/m³ (particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter)
Remark (ACGIH)	TLV® Basis: Pneumoconiosis. Notations: A4 (Not classifiable as a Human Carcinogen)
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2020
USA - OSHA - Occupational Exposure Limits	
Local name	Kaolin
OSHA PEL TWA	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - NIOSH - Occupational Exposure Limits	
Local name	Kaolin
NIOSH REL TWA	10 mg/m³ (total dust) 5 mg/m³ (respirable dust)
NIOSH REL 10h TWA	10 mg/m³ (Total dust) 5 mg/m³ (Respirable fraction)
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))

8.2. Appropriate engineering controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Hand protection:

None necessary under normal conditions of use. Wear gloves if handling large quantities. Consult glove manufacturer's product information on material suitability and material thickness.

Eye protection:

Safety glasses or goggles are recommended when using product.

Skin and body protection:

None necessary under normal conditions of use.

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work environment.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Heavy paste.
Colour	:	Black
Odour	:	Solvent
Odour threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	71.1 °C (160 °F)
Flammability (solid, gas)	:	Combustible liquid.
Vapour pressure	:	No data available
Relative vapour density at 20°C/ 68 °F	:	No data available
Relative density	:	1.2
Solubility	:	No data available
Partition coefficient n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	> 20.5 mm²/s
Explosive limits	:	No data available
Particle characteristics	:	No data available

Asphalt, oxidized	
Boiling point	308 – 382 °C (at 1013.25 hPa)
Flash point	> 250 °C Atm. press.: 101,325 kPa
Vapour pressure	< 0.1 kPa Temp.: 20 °C

Microcrystalline cellulose	
Auto-ignition temperature	232 °C

Naphtha, petroleum, hydrotreated heavy	
Boiling point	-20 – 260 °C Atm. press.: 101,325 kPa
Flash point	< -40 °C Atm. press.: 101,325 other:kPa (assumed). Pressure not stipulated in the citation
Auto-ignition temperature	> 200 °C (at 1013 hPa)
Vapour pressure	≤ 240 kPa Temp.: 37,8 °C

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

May form flammable/explosive vapour-air mixture. Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Sources of ignition. Incompatible materials.

10.5. Incompatible materials

Strong acids. Oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. May release flammable gases.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified.
Acute toxicity (dermal) : Not classified.
Acute toxicity (inhalation) : Not classified.

Asphalt, oxidized (64742-93-4)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Microcrystalline cellulose (9004-34-6)	
LD50 oral rat	> 5 g/kg (Source: NLM_CIP)
LD50 dermal rabbit	> 2000 mg/kg (Source: NLM_CIP)
LC50 inhalation rat	> 5800 mg/m³ (Exposure time: 4 h Source: NLM_CIP)

Naphtha, petroleum, hydrotreated heavy (64742-48-9)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 5000 mg/kg (Source: ECHA_API)
LC50 inhalation rat	> 8500 mg/m³ (Exposure time: 4 h Source: EPA_HPV)

Kaolin (1332-58-7)	
LD50 oral rat	> 5000 mg/kg (Source: NLM_HSDB)
LD50 dermal rat	> 5000 mg/kg (Source: NLM_HSDB)

Skin corrosion/irritation : Not classified.

Serious eye damage/irritation : Not classified.

Respiratory or skin sensitisation : Not classified.
Germ cell mutagenicity : Not classified.

Carcinogenicity : Not classified.

Reproductive toxicity : Not classified.
STOT-single exposure : Not classified.
STOT-repeated exposure : Not classified.

Asphalt, oxidized (64742-93-4)	
LOAEL (dermal, rat/rabbit, 90 days)	200 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.0207 mg/l air Animal: rat, Guideline: other:
NOAEL (dermal, rat/rabbit, 90 days)	≥ 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

Aspiration hazard : Not classified.

Palmer Mirro-Mastic ®	
Viscosity, kinematic	> 20.5 mm²/s

Asphalt, oxidized (64742-93-4)	
Viscosity, kinematic	No data available

Microcrystalline cellulose (9004-34-6)	
Viscosity, kinematic	No data available

Naphtha, petroleum, hydrotreated heavy (64742-48-9)	
Viscosity, kinematic	< 1 mm²/s Temp.: 'other:37.8°C' Parameter: 'kinematic viscosity (in mm²/s)'

Kaolin (1332-58-7)	
Viscosity, kinematic	No data available

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
Symptoms/effects after skin contact : May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.
Hazardous to the aquatic environment, short–term (acute) : Not classified.
Hazardous to the aquatic environment, long–term (chronic) : Not classified.

Asphalt, oxidized (64742-93-4)	
EC50 72h - Algae [1]	56 mg/l (Species: Pseudokirchneriella subcapitata)

Naphtha, petroleum, hydrotreated heavy (64742-48-9)	
LC50 - Fish [1]	2200 mg/l (Exposure time: 96 h - Species: Pimephales promelas Source: IUCLID)

12.2. Persistence and degradability

Palmer Mirro-Mastic ®	
Persistence and degradability	Not established.

Asphalt, oxidized (64742-93-4)	
Persistence and degradability	Rapidly degradable

Microcrystalline cellulose (9004-34-6)	
Persistence and degradability	Rapidly degradable

Naphtha, petroleum, hydrotreated heavy (64742-48-9)	
Persistence and degradability	Rapidly degradable

Kaolin (1332-58-7)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

Palmer Mirro-Mastic ®	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified.

Fluorinated greenhouse gases : No

Other information : No other effects known.

SECTION 13 Disposal considerations

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. The generation of waste should be avoided or minimised wherever possible.

Additional information : Handle empty containers with care because residual vapours are flammable.

SECTION 14 Transport information

In accordance with DOT / TDG

14.1. UN Number

UN-No. (DOT) : NA1993

UN-No. (TDG) : Not regulated

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Combustible liquid, n.o.s. (petroleum distillates)

Proper Shipping Name (TDG) : Not regulated

14.3. Transport hazard class(es)

DOT
Transport hazard class(es) (DOT) : Combustible liquid

TDG
Transport hazard class(es) (TDG) : Not regulated

14.4. Packing group

Packing group (DOT) : III
Packing group (TDG) : Not regulated

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

DOT
UN-No. (DOT) : NA1993
DOT Special Provisions (49 CFR 172.102) : 148 - For domestic transportation, this entry directs to § 173.66 for: a. The standards for transporting a single bulk hazardous material for blasting by cargo tank motor vehicles (CTMV); and b. The standards for CTMVs capable of transporting multiple hazardous materials for blasting in bulk and non-bulk packagings (i.e, a multipurpose bulk truck (MBT)).
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / (1 + a (tr - tf)) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L
DOT Vessel Stowage Location : A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.

TDG
Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

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

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

15.2. International regulations

No additional information available

15.3. State regulations

WARNING: This product can expose you to Bitumens, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16 Other Information

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024 and the Hazardous Products Regulations (HPR) WHMIS 2022

Revision date : 2025-06-30

Issue date : 2021-12-23

Other information : None.

Prepared by : Nexreg Compliance Inc.
www.Nexreg.com

Indication of changes:		
Section	**Changed item**	**Comments**
SDS	SDS update	**Modified** V 2.0

SDS HazCom 2024 - WHMIS 2022 (Nexreg) 2025

Disclaimer: The statements, technical information and recommendations contained herein are believed to be reliable but they are given without warranty or guarantee of any kind regarding the accuracy of the data or the results to be obtained from the use thereof. The information contained in this document applies to this specific material as supplied and is provided solely for your information and consideration and Palmer Products Corporation assumes no responsibility for use or reliance thereon. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy itself about the suitability and completeness of this information for the user's own particular use. Palmer Products Corporation makes no warranties, express or implied, with respect to this product or otherwise and it hereby disclaims any and all warranties, including without limitation, any implied warranty of merchantability or fitness for a particular purpose. It is the responsibility of the user to comply with all applicable federal, state and local laws, ordinances and regulations.