

Safety Data Sheet

Bulldog Modified Bitumen Adhesive - Brush Grade #734

SDS Revision Date: 04/28/2015



1. Identification

1.1. Product identifier

Product Identity

Bulldog Modified Bitumen Adhesive- Brush Grade #734

Alternate Names

Bulldog Modified Bitumen Adhesive- Brush Grade#734

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use

See Technical Data Sheet.

Application Method

See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name

Palmer Asphalt Company
196 West 5th St., P.O. Box 58
Bayonne, NJ 07002

Emergency Telephone No.

(201) 339-0855
8:00a.m. - 5:00p.m. EST

After Hours

CHEMTREC (800) 424-9300

2. Hazard(s) Identification

2.1. Classification of the substance or mixture

Flam. Liq. 3;H226

Flammable liquid and vapor.

Skin Irrit. 2;H315

Causes skin irritation.

Eye Irrit. 2;H319

Causes serious eye irritation.

Skin Sens. 1;H317

May cause an allergic skin reaction.

Carc. 2;H351

Suspected of causing cancer.

STOT RE 1;H372

Causes damage to organs through prolonged or repeated exposure. Specific Target Organs: (central nervous system)

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Danger

H226 Flammable liquid and vapor.

H315 Causes skin irritation.

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- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H351 Suspected of causing cancer.
- H372 Causes damage to organs through prolonged or repeated exposure.

[Prevention]:

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.
- P235 Keep cool.
- P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
- P262 Do not get in eyes, on skin, or on clothing.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves / eye protection / face protection.

[Response]:

- P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.
- P302+352 IF ON SKIN: Wash with plenty of soap and water.
- P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
- P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
- P308+313 IF exposed or concerned: Get medical advice / attention.
- P314 Get Medical advice / attention if you feel unwell.
- P321 Specific treatment (see information on this label).
- P331 Do NOT induce vomiting.
- P333+313 If skin irritation or a rash occurs: Get medical advice / attention.
- P337+313 If eye irritation persists: Get medical advice / attention.
- P362 Take off contaminated clothing and wash before reuse.
- P363 Wash contaminated clothing before reuse.
- P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]:

- P403+233 Store in a well ventilated place. Keep container tightly closed.
- P405 Store locked up.

[Disposal]:

- P501 Dispose of contents / container in accordance with local / national regulations.

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3. Composition/Information on Ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

| Ingredient/Chemical Designations | Weight % | GHS Classification | Notes |
|---|----------|---|--------|
| Asphalt (petroleum) CAS Number: 0008052-42-4 | 50 - 75 | Not Classified | [1][2] |
| Stoddard solvent CAS Number: 0008052-41-3 | 25 - 50 | STOT RE 1;H372 Asp. Tox. 1;H304 | [1][2] |
| MICA CAS Number: 0012001-26-2 | 1.0 - 10 | Not Classified | [1][2] |
| Solvent naphtha (petroleum), light aromatic CAS Number: 0064742-95-6 | 1.0 - 10 | Asp. Tox. 1;H304 | [1] |
| Styrene-Butadiene polymer CAS Number: 0009003-55-8 | 1.0 - 10 | Skin Sens. 1;H317 | [1] |
| Cellulose CAS Number: 0009004-34-6 | 1.0 - 10 | Not Classified | [1][2] |
| Magnesium aluminum silicate CAS Number: 0012174-11-7 | 1.0 - 10 | Carc. 2;H351 | [1] |
| 1-Propanamine, 3-(isodecyloxy)-, acetate CAS Number: 0028701-67-9 | 1.0 - 10 | Acute Tox. 4;H302 Skin Corr. 1B;H314 Aquatic Chronic 1;H410 | [1] |

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

4. First Aid Measures

4.1. Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation

Mineral Spirits and Aromatic Petroleum Distillate - excessive inhalation of vapors can cause irritation of nose or throat, dizziness, weakness fatigue, nausea, headache, possible unconsciousness and even asphyxiation. Remove individual to fresh air. Avoid further overexposure. If symptoms persist, get medical attention immediately.

Eyes

Petroleum distillate (mineral spirits), petroleum asphalt, fibers and minerals can cause severe irritation, redness, tearing, and blurred vision. Fibers may cause mechanical irritation. Flush immediately with running water for 15 minutes, lifting the upper and lower lids occasionally. **Get medical attention immediately.**

Skin

Petroleum Distillate and Asphalt - prolonged or repeated contact can cause moderate irritation, defatting dermatitis. Remove contaminated clothing, thoroughly wash exposed

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Ingestion

area with hand cleaner followed by soap and water. If irritation or redness develops and persists, get medical attention immediately.

Aspiration hazard. DO NOT INDUCE VOMIT - transport to hospital immediately. **GET MEDICAL ATTENTION IMMEDIATELY.** Note to Physician - perform gastric lavage in accordance with procedures for ingestion of petroleum products.

4.2. Most important symptoms and effects, both acute and delayed

Overview

Emergency Overview: Silvery liquid. Can cause headache, dizziness, drowsiness, or irritation to the skin, eyes, and respiratory system. If inhaled, leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention immediately.

Potential Health Effect/Rate of Entry:

Inhalation: Can cause headache, dizziness, nausea, drowsiness, stupor, irritation to respiratory system.

Eyes: Can cause irritation.

Ingestion: Can cause gastrointestinal irritation.

Skin: Can cause irritation.

Aggravated Medical Conditions: Pre-existing eye, skin, liver, and respiratory disorders may be aggravated by exposure.

Variability Among Individuals: Health studies have shown that individual sensitivities vary from person to person. As a precaution, exposure to vapors, liquids, mists, or fumes should be minimized.

Effects of Overexposure: (Signs and symptoms of exposure) High vapor concentrations (>1000 ppm) are irritating to the eyes and the respiratory tract, and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects, including death.

Pre-existing Medical Conditions Which May be Aggravated by Exposure: Person with pre-existing central nervous system disease, skin disorders, or chronic respiratory disease should avoid exposure to this product.

Chronic Health Effects: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Prolonged or repeated skin contact with these products may result in irritation and dermatitis. Although a direct association between asphalt and cancer or other lung disease has not been established in man, asphalts contain variable amounts of polycyclic aromatic hydrocarbons and other volatiles which have been shown to cause cancer and respiratory damage in animals. Prolonged or repeated exposure to petroleum distillates (Petroleum naphtha, stoddard solvent, or mineral spirits) may cause the defatting, irritation, dermatitis, narcotic and CNS effects described above, liver effects, and jaundice. Kidney and lung effects have been noted in some animals. Inhalation of crystalline silica (quartz) can cause cancer based on animal data, and IARC concludes sufficient evidence in humans (Group 1). Prolonged and repeated overexposure to free crystalline silica dust above the TLV level may cause scarring of the lungs with cough and shortness of breath. A delayed lung injury,

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silicosis may result from breathing free silica. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

Nature of Hazard and Toxicity Information: Prolonged or repeated skin contact with this product tends to remove skin oils possibly leading to irritation and dermatitis. However, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria. Product contacting the eyes may cause eye irritation. Product has a low order of acute oral and dermal toxicity, but minute amounts aspirated into the lungs during ingestion may cause mild to severe pulmonary injury and possibly death. Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.

Eyes

Causes serious eye irritation.

Skin

May cause an allergic skin reaction. Causes skin irritation.

5. Fire-fighting Measures

5.1. Extinguishing media

Class "B" dry chemical, carbon dioxide, or other suitable extinguishing material such as dry sand. Do not use halogenated agents. When flames have been eliminated, cover residue with dry extinguishing agent or dry sand and allow it to remain undisturbed until it has cooled. If fire appears to increase in intensity, stop using these agents. Apply Class "D" extinguishing agent or more dry, inert, granular material. Ring fire with extinguishing material and allow the fire to burn out.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: May form toxic materials, carbon dioxide, carbon monoxide, and nitrogen oxides.

Keep away from heat / sparks / open flames / hot surfaces - No smoking.

Keep cool.

Ground / bond container and receiving equipment.

Use explosion-proof electrical / ventilating / light / equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

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

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Do not get in eyes, on skin, or on clothing.

5.3. Advice for fire-fighters

Avoid contact with skin, PPE should be worn and any breathing apparatus if necessary.

If the fire does not respond to above agents or they are not available, use foam or water FOG as a last resort. Water may also be used to cool exposed, but not burning, containers. These products may float and be re-ignited on top of water.

Closed containers may explode in a fire. Keep containers cool and remove to a safe location.

In a confined space, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face-piece and protective clothing. Persons without respiratory protection should leave area.

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6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Release Response Overview: Remove sources of ignition immediately. Ventilate to reduce the airborne contaminant concentration below the exposure limit in Section 2 of the MSDS. Absorb spill in sand, earth, or other suitable material. Transfer to appropriate container for disposal. ASSURE CONFORMITY WITH APPLICABLE GOVERNMENTAL REGULATIONS.

7. Handling and Storage

7.1. Precautions for safe handling

Keep dust to a minimum.

Keep containers tightly closed. Keep containers cool, dry, and away from sources of ignition. Use this product with adequate ventilation. Material is COMBUSTIBLE. Material requires electrical grounding during material transfer process. All electrical equipment in storage or handling areas should be installed per NFPA requirements.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

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Store in closed container. Keep product and vapor away from heat, sparks and flame. Do not store in direct sunlight. Prevent inhalation of vapor, ingestion, and contact with skin and eyes. Keep container closed when not in use. Vapor may migrate to sources of ignition. Do not smoke, weld, generate sparks, or use flame near container. Change soiled work clothes frequently. Clean hands thoroughly after handling. To prevent gases, vapors or fumes from migrating into occupied sections of the building, close or cover all openings including windows, doors, and air intakes during and after application until gases, vapors or fumes dissipate. Precautions also apply to emptied containers.

Keep container closed when not in use. Store in a dry ventilated area. Maintain package labeling during storage.

Incompatible materials: Strong oxidizing agents

"Empty" Container Warning: Dispose of in an environmentally safe manner and in accordance with governmental regulations. "Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. For work on tanks, refer to OSHA regulation ANSI Z49.1 and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure Controls and Personal Protection

8.1. Control parameters

Exposure

| CAS No. | Ingredient | Source | Value |
|--------------|---------------------------|----------|---|
| 0008052-41-3 | Stoddard solvent | OSHA | TWA 500 ppm (2900 mg/m ³) |
| | | ACGIH | TWA: 290 mg/m ³ STEL: 580 mg/m ³ |
| | | NIOSH | TWA 350 mg/m ³ C 1800 mg/m ³ [15-minute] |
| | | Supplier | No Established Limit |
| 0008052-42-4 | Asphalt (petroleum) | OSHA | No Established Limit |
| | | ACGIH | TWA: 0.5 mg/m ³ 2B |
| | | NIOSH | Ca C 5 mg/m ³ [15-minute] |
| | | Supplier | No Established Limit |
| 0009003-55-8 | Styrene-Butadiene polymer | OSHA | No Established Limit |
| | | ACGIH | No Established Limit |
| | | NIOSH | No Established Limit |
| | | Supplier | No Established Limit |
| 0009004-34-6 | Cellulose | OSHA | TWA 10 mg/m ³ (total) TWA 5 mg/m ³ (resp) |
| | | ACGIH | TWA: 10 mg/m ³ |

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| | | | |
|--------------|---|----------|---|
| | | NIOSH | TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp) |
| | | Supplier | No Established Limit |
| 0012001-26-2 | MICA | OSHA | TWA 20 mppcf |
| | | ACGIH | TWA: 3 mg/m3 |
| | | NIOSH | TWA 3 mg/m3 (resp) |
| | | Supplier | No Established Limit |
| 0012174-11-7 | Magnesium aluminum silicate | OSHA | No Established Limit |
| | | ACGIH | No Established Limit |
| | | NIOSH | No Established Limit |
| | | Supplier | No Established Limit |
| 0028701-67-9 | 1-Propanamine, 3-(isodecyloxy)-, acetate | OSHA | No Established Limit |
| | | ACGIH | No Established Limit |
| | | NIOSH | No Established Limit |
| | | Supplier | No Established Limit |
| 0064742-95-6 | Solvent naphtha (petroleum), light aromatic | OSHA | No Established Limit |
| | | ACGIH | No Established Limit |
| | | NIOSH | No Established Limit |
| | | Supplier | No Established Limit |

The exposure limits for nuisance dust are: OSHA PEL: 15 mg/m3 (50 mppcf*) TWA, ACGIH 10 mg/m3.

Carcinogen Data

| CAS No. | Ingredient | Source | Value |
|--------------|-----------------------------|--------|---|
| 0008052-41-3 | Stoddard solvent | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |
| 0008052-42-4 | Asphalt (petroleum) | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No; |
| 0009003-55-8 | Styrene-Butadiene polymer | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No; |
| 0009004-34-6 | Cellulose | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |
| 0012001-26-2 | MICA | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |
| 0012174-11-7 | Magnesium aluminum silicate | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |

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| | | | |
|--------------|---|------|---|
| | | IARC | Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No; Group 4: No; |
| 0028701-67-9 | 1-Propanamine, 3-(isodecyloxy)-, acetate | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |
| 0064742-95-6 | Solvent naphtha (petroleum), light aromatic | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |

8.2. Exposure controls

Respiratory

If irritation occurs or when the airborne contaminant level (s) exceed the exposure limits indicated on the MSDS, wear appropriate, properly fitted, NIOSH/MSHA approved respirator. Follow respirator manufacturer's directions for respirator use. Use respiratory protection under your company's respiratory protection program, local regulations or OSHA regulations under 29 CFR 1910.134.

Eyes

Use safety glasses, chemical goggles or face shield.

Skin

Protective clothing as necessary to prevent wetting of the skin. Use chemical resistant gloves, if needed, to avoid prolonged or repeated skin contact.

Engineering Controls

Use only with ventilation sufficient to prevent exceeding recommended exposure limit or build-up of explosive concentrations of vapor in air. Use explosion-proof equipment. No smoking or open lights.

Other Work Practices

Minimize breathing vapor or mist. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry clean before reuse. Remove contaminated shoes and thoroughly clean and dry before reuse. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners followed by washing thoroughly with soap and water. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Keep containers closed when not in use. DO NOT STORE NEAR HEAT, SPARKS, FLAME OR STRONG OXIDANTS. To prevent fire or explosion risk from static accumulations and discharge, effectively ground product transfer system in accordance with NFPA standard for petroleum products.

See section 2 for further details. - [Prevention]:

9. Physical and Chemical Properties

Appearance

Black Liquid

Odor

Petroleum solvent

Odor threshold

Not Measured

pH

Not applicable

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| | |
|--|--|
| Melting point / freezing point | Not applicable |
| Initial boiling point and boiling range | 300°F IBP (ASTM D 86), Mineral Spirits |
| Flash Point | (Minimum) 100°F TCC (Mineral Spirits) ASTM D 3143 |
| Evaporation rate (Ether = 1) | Not available |
| Flammability (solid, gas) | Not Applicable |
| Upper/lower flammability or explosive limits | Lower Explosive Limit: 0.9% Upper Explosive Limit: 6.7% |
| Vapor pressure (Pa) | Approximately 2.9 mm Hg @ 20°C, Mineral Spirits |
| Vapor Density | Approximately 4.9 (air = 1.0), Mineral Spirits |
| Specific Gravity | Greater than 1.00 |
| Solubility in Water | Negligible |
| Partition coefficient n-octanol/water (Log Kow) | Not Measured |
| Auto-ignition temperature | Greater than 400°F, ASTM E 659 |
| Decomposition temperature | Not available |
| Viscosity (cSt) | Not available |
| VOC Content | Not available |
| % Volatile | Less than 40 (by volume) |

9.2. Other information

No other relevant information.

10. Stability and Reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Excessive heat and open flame.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

May form toxic materials, carbon dioxide, carbon monoxide, and nitrogen oxides.

11. Toxicological Information

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Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Based upon animal testing, the C9 aromatic hydrocarbon components (trimethylbenzenes and ethylmethylbenzenes) are presumed to cause fetal toxicity and/or decreased fetal and newborn weights if overexposure occurs during the early gestation period.

| Ingredient | Oral LD50, mg/kg | Skin LD50, mg/kg | Inhalation Vapor LC50, mg/L/4hr | Inhalation Dust/Mist LC50, mg/L/4hr | Inhalation Gas LC50, ppm |
|--|--------------------------------|--------------------------------|---------------------------------|-------------------------------------|--------------------------|
| Asphalt (petroleum) - (0008052-42-4) | No data available | No data available | No data available | No data available | No data available |
| Stoddard solvent - (0008052-41-3) | > 5,000.00, Rat - Category: NA | No data available | No data available | 5.50, Rat - Category: NA | No data available |
| MICA - (0012001-26-2) | No data available | No data available | No data available | No data available | No data available |
| Solvent naphtha (petroleum), light aromatic - (0064742-95-6) | 6,800.00, Rat - Category: NA | 3,400.00, Rabbit - Category: 5 | No data available | No data available | No data available |
| Styrene-Butadiene polymer - (0009003-55-8) | No data available | No data available | No data available | No data available | No data available |
| Cellulose - (0009004-34-6) | 5,000.00, Rat - Category: 5 | 2,000.00, Rabbit - Category: 4 | No data available | No data available | No data available |
| Magnesium aluminum silicate - (0012174-11-7) | No data available | No data available | No data available | No data available | No data available |
| 1-Propanamine, 3-(isodecyloxy)-, acetate - (0028701-67-9) | No data available | No data available | No data available | No data available | No data available |

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

| Classification | Category | Hazard Description |
|-----------------------------|----------|--------------------|
| Acute toxicity (oral) | --- | Not Applicable |
| Acute toxicity (dermal) | --- | Not Applicable |
| Acute toxicity (inhalation) | --- | Not Applicable |

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| | | |
|-------------------------------|-----|---|
| Skin corrosion/irritation | 2 | Causes skin irritation. |
| Serious eye damage/irritation | 2 | Causes serious eye irritation. |
| Respiratory sensitization | --- | Not Applicable |
| Skin sensitization | 1 | May cause an allergic skin reaction. |
| Germ cell mutagenicity | --- | Not Applicable |
| Carcinogenicity | 2 | Suspected of causing cancer. |
| Reproductive toxicity | --- | Not Applicable |
| STOT-single exposure | --- | Not Applicable |
| STOT-repeated exposure | 1 | Causes damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | --- | Not Applicable |

12. Ecological Information

12.1. Toxicity

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and GHS and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details

Aquatic Ecotoxicity

| Ingredient | 96 hr LC50 fish, mg/l | 48 hr EC50 crustacea, mg/l | ErC50 algae, mg/l |
|--|---------------------------|----------------------------|--|
| Asphalt (petroleum) - (0008052-42-4) | Not Available | Not Available | Not Available |
| Stoddard solvent - (0008052-41-3) | Not Available | Not Available | Not Available |
| MICA - (0012001-26-2) | Not Available | Not Available | Not Available |
| Solvent naphtha (petroleum), light aromatic - (0064742-95-6) | 9.22, Oncorhynchus mykiss | 6.14, Daphnia magna | 19.00 (72 hr), Selenastrum capricornutum |
| Styrene-Butadiene polymer - (0009003-55-8) | Not Available | Not Available | Not Available |
| Cellulose - (0009004-34-6) | 100.00, Fish (Piscis) | Not Available | Not Available |
| Magnesium aluminum silicate - (0012174-11-7) | Not Available | Not Available | Not Available |
| 1-Propanamine, 3-(isodecyloxy)-, acetate - (0028701-67-9) | Not Available | Not Available | Not Available |

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

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12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal Considerations

13.1. Waste treatment methods

Bury in an approved landfill according to federal, state, and local regulations. Empty containers that have been completely emptied and the residue allowed to dry are not considered hazardous waste.

14. Transport Information

| | DOT (Domestic Surface Transportation) | IMO / IMDG (Ocean Transportation) | ICAO/IATA |
|---|--|---|----------------------------------|
| 14.1. UN number | Not Applicable | Not Regulated | Not Regulated |
| 14.2. UN proper shipping name | Not Regulated | Not Regulated | Not Regulated |
| 14.3. Transport hazard class(es) | DOT Hazard Class: Not Applicable | IMDG: Not Applicable Sub Class: Not Applicable | Air Class: Not Applicable |
| 14.4. Packing group | Not Applicable | Not Applicable | Not Applicable |
| 14.5. Environmental hazards | | | |
| IMDG | Marine Pollutant: No | | |
| 14.6. Special precautions for user | No further information | | |

15. Regulatory Information

| | |
|---|---|
| Regulatory Overview | The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. |
| Toxic Substance Control Act (TSCA) | All components of this material are either listed or exempt from listing on the TSCA Inventory. |
| WHMIS Classification | B3 D2A |
| US EPA Tier II Hazards | Fire: Yes |

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Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): Yes

Delayed (Chronic): Yes

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

Magnesium aluminum silicate

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Asphalt (petroleum)

Cellulose

MICA

Stoddard solvent

Pennsylvania RTK Substances (>1%):

Asphalt (petroleum)

Cellulose

MICA

Stoddard solvent

16. Other Information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

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The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The information and recommendations contained herein are the best of PALMER ASPHALT'S knowledge and belief, accurate, and reliable as of the date issued. PALMER ASPHALT COMPANY does not warrant or guarantee their accuracy or reliability, and PALMER ASPHALT COMPANY shall not be liable for any loss or damage arising out of the use thereof. The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for this particular use.

The Environmental Information included under Section 12 hereof as well as the Hazardous Material Identification System (HMIS) and National Fire Protection Association (NFPA) ratings have been included by PALMER ASPHALT COMPANY in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with PALMER ASPHALT COMPANY'S interpretation of the available data.

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