Material Safety Data Sheet

Asphalt Primer

MSDS #: 3317

1. Product and company identification

Hazard Label CAUTION

Johns Manville
Roofing Systems
717 17th Street
Denver, CO 80202 US

Telephone: 303-978-2000 8:00AM-5:00PM M-F
Internet: http://www.jm.com
Email: productsafety@jm.com
Emergency phone: 1-800-424-9300 (Chemtrec, in English)

Trade name: Asphalt Primer

2. Hazards identification

Emergency overview

Avoid prolonged contact with eyes, skin and clothing.
Potential acute health effects
Inhalation: May cause respiratory irritation.
Ingestion: Gastrointestinal irritation
Skin: May be harmful in contact with skin.
Eyes: May cause eye irritation.

Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

3. Composition/information on ingredients

Name	CAS number	%
Asphalt, petroleum	8052-42-4	50 - 75
Stoddard solvent	8052-41-3	25 - 35
Asphalt, oxidized	64742-93-4	10 - 24
Benzene, ethyl-	100-41-4	0 - 0.91

4. First aid measures

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

Skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.

Inhalation: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur.

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

Notes to physician: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product: The vapor/gas is heavier than air and will spread along the ground.

Extinguishing media
Suitable: Use dry chemical, CO2, water spray (fog) or foam.
Not suitable: None known.

Fire-fighting measures:

Hazardous thermal decomposition products: No specific data.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions: Evacuate surrounding areas. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see section 8).

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up
Small spill: Move containers from spill area. Dispose of via a licensed waste disposal contractor.
Large spill: Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling: Put on appropriate personal protective equipment (see section 8). Workers should wash hands and face before eating, drinking and smoking.

Storage: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

8. Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.Exposure limits
Asphalt, petroleum:
ACGIH TLV(2000-03-01) Notes: The agent (mixture, or exposure circumstance) is not classifiable as to its carcinogenicity to humans. Substance identified by other sources as a suspected or confirmed human carcinogen. Refers to Appendix A -- Carcinogens. 2000 Adoption. Inhalable fraction. See Appendix C, paragraph A. Inhalable Particulate Mass TLVs (IPM–TLVs) for those materials that are hazardous when deposited anywhere in the respiratory tract. (Petroleum; Bitumen) fume as benzene-soluble aersol (or eqivalent method) TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level, 0.5 mg/m3 Form: fume
NIOSH REL(1994-06-01) Notes: NIOSH potential occupational carcinogen See Appendix A - NIOSH Potential Occupational Carcinogen Threshold Limit Value - Ceiling (TLV-C), 5 mg/m3 Form: fume

Stoddard solvent:
ACGIH TLV(1994-09-01) Notes: Substances for which the TLV is higher than the OSHA Permissible Exposure Limit (PEL) and/or the NIOSH Recommended Exposure Limit (REL). See CFR 58(124) :36338-33351, June 30, 1993, for revised OSHA PEL. TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level, 525 mg/m3, 100 ppm
NIOSH REL(1994-06-01) Time Weighted Average (TWA), 350 mg/m3
NIOSH REL(1994-06-01) Threshold Limit Value - Ceiling (TLV-C), 1,800 mg/m3
OSHA PEL 1989(1989-03-01) PEL: Permissible Exposure Level, 525 mg/m3, 100 ppm
OSHA PEL(1993-06-30) PEL: Permissible Exposure Level, 2,900 mg/m3, 500 ppm

Benzene, ethyl-:
ACGIH TLV(2002-01-01) Notes: Confirmed animal carcinogen with unknown relevance to humans. Substances for which there is a Biological Exposure Index or Indices 2002 Adoption. TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level, 100 ppm
ACGIH TLV(2002-01-01) Notes: Confirmed animal carcinogen with unknown relevance to humans. Substances for which there is a Biological Exposure Index or Indices 2002 Adoption. TLV-STEL: Threshold Limit Value - Short Time Exposure Level, 125 ppm
NIOSH REL(1994-06-01) Time Weighted Average (TWA), 435 mg/m3, 100 ppm
NIOSH REL(1994-06-01) Short Term Exposure Limit (STEL), 545 mg/m3, 125 ppm
OSHA PEL 1989(1989-03-01) PEL: Permissible Exposure Level, 435 mg/m3, 100 ppm
OSHA PEL 1989(1989-03-01) Short Term Exposure Limit (STEL), 545 mg/m3, 125 ppm
OSHA PEL(1993-06-30) PEL: Permissible Exposure Level, 435 mg/m3, 100 ppm

Engineering measures: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with

exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection
Respiratory: If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.
Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
Skin: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

9. Physical and chemical properties

Physical state: liquid
Flash point: 104 °F (40.00 °C)
Color: Black.
Vapor density: 4
VOC: < 350 g/l By calculation

10. Stability and reactivity

Stability: The product is stable.

Materials to avoid: oxidizing agents

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Acute toxicity

Stoddard solvent:	LD Dermal Rabbit: > 3,000 mg/kg
Benzene, ethyl-:	LD50 Oral Rat: 3,500 mg/kg LD50 Oral Rat: 3,500 mg/kg LC50 inhalation Rat: 55 mg/l, 2 h LC50 inhalation Mouse: 35.5 mg/l, 2 h LD50 Dermal Rabbit: > 5,000 mg/kg

Classification

Product/ingredient name	ACGIH	IARC	NIOSH	NTP	OSHA	
Asphalt, petroleum	A4	3	+			
Asphalt, oxidized		3				
Benzene, ethyl-	A3	2B				

ACGIH-A4-Not classifiable as a human carcinogen
ACGIH-A3-Animal carcinogen
IARC Group 3, not classifiable as to carcinogenicity to humans

IARC Group 2B, possibly carcinogenic to humans
+: NIOSH potential occupational carcinogen

12.Ecological information

Aquatic ecotoxicity

Benzene, ethyl-:

4 d LC50 Fresh water Pimephales promelas: 9.09 mg/l
4 d LC50 Fresh water Pimephales promelas: 48.51 mg/l
4 d LC50 Fresh water Pimephales promelas: 42.33 mg/l
4 d LC50 Fresh water Lepomis macrochirus: 32 mg/l
4 d LC50 Fresh water Poecilia reticulata: 97.1 mg/l
4 d LC50 Fresh water Lepomis macrochirus: 150 mg/l
4 d LC50 Fresh water Pimephales promelas: 12.1 mg/l
4 d LC50 Fresh water Oncorhynchus mykiss: 4.2 mg/l
4 d LC50 Fresh water Poecilia reticulata: 9.6 mg/l
4 d LC50 Salt water Cyprinodon variegatus: 280 mg/l
2 d LC50 Fresh water Daphnia magna: 75 mg/l
2 d EC50 Fresh water Daphnia magna: 2.97 mg/l
2 d EC50 Fresh water Daphnia magna: 2.93 mg/l
2 d LC50 Fresh water Daphnia magna: 18.4 mg/l
2 d LC50 Fresh water Daphnia magna: 13.9 mg/l

Environmental fate: No known significant effects or critical hazards.

13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14.Transport information

These products are not classifiied as dangerous goods according to international transport regulations.

15.Regulatory information

U.S. Federal regulations
State regulations

California Prop. 65

Asphalt fumes may contain trace amounts of the following California Proposition 65 Listed Substances as known to the state of California to cause cancer or reproductive effects: Poly nuclear aromatic hydrocarbons (benz(a)anthracene, benzo(b)fluoranthene, benzo(j)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene).

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Benzene, ethyl-	Yes.	No.	No.	No.

CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4): Benzene, ethyl-1000 lbs RQ

Canada

WHMIS (Classification): Class B-3: Combustible liquid with a flash point between 37.8℃ (100℉) and 93.3℃ (200℉).Class D-2B: Material cau sing other toxic effects (Toxic).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

DSL: Listed

International regulations

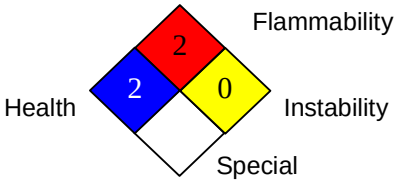
Korea inventory (KECI): Listed
Japan inventory (ISHL): Listed
Japan inventory (ENCS): Listed
China inventory (IECSC): Listed
Australia inventory (AICS): Listed
Philippines inventory (PICCS): Listed
New Zealand Inventory of Chemicals (NZIoC): Not listed.

16.Other information

Hazardous Material Information System (U.S.A.) :

Health	-	2
Flammability		2
Physical hazards		0

National Fire Protection Association (U.S.A.):



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