

MATERIAL SAFETY DATA SHEET

Klean-Strip Peeler

Page: 1

HEALTH	*	2
FLAMMABILITY		2
PHYSICAL HAZ.		1
PPE		X



Printed: 07/29/2010
Revision: 07/23/2010
Supersedes Revision: 04/30/1999

1. Product and Company Identification

Product Code: A223.2
Product Name: Klean-Strip Peeler
Manufacturer Information
Company Name: W. M. Barr
2105 Channel Avenue
Memphis, TN 38113
Phone Number: (901)775-0100
Emergency Contact: 3E 24 Hour Emergency Contact (800)451-8346
Information: W.M. Barr Customer Service (800)398-3892
Web site address: www.wmbarr.com
Preparer Name: W.M. Barr EHS Dept (901)775-0100
Synonyms
EFS459

2. Hazards Identification

Emergency Overview

Danger! Poison! Flammable.
May be fatal or cause blindness if swallowed.
Vapor harmful.
Skin and eye irritant.
Aerosol container - contents under pressure.
Keep away from heat sparks, flame and all other sources of ignition. Vapors may cause flash fire or ignite explosively.
Use only with adequate ventilation to prevent buildup of vapors.

OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

Health Hazards (Acute and Chronic)

INHALATION ACUTE EXPOSURE EFFECTS:

Harmful if inhaled. May cause upper respiratory tract irritation and central nervous system depression with symptoms such as confusion, lightheaded, nausea, vomiting, headache, and fatigue. Causes formation of carbon monoxide in blood which may affect the cardiovascular system and central nervous system. Continued exposure may cause unconsciousness and even death. High vapor concentrations may also cause irritation of the eyes and respiratory tract. Exposure to methylene chloride may make the symptoms of angina (chest pains) worse.

SKIN CONTACT ACUTE EXPOSURE EFFECTS:

This product is a skin irritant. May cause mild to moderate skin irritation. Prolonged or repeated contact may dry the skin or cause skin burns. Symptoms may include redness, burning, drying and cracking of the skin, pain, and skin burns. Skin absorption may occur.

INGESTION ACUTE EXPOSURE EFFECTS:

Harmful or fatal if swallowed. May cause nausea, diarrhea or vomiting. If vomiting results in aspiration, chemical pneumonia could occur. Absorption through the gastrointestinal tract may produce central nervous system depression. Methanol exposure may cause visual impairment, including blindness, coma, and death.

MATERIAL SAFETY DATA SHEET

Klean-Strip Peeler

Page: 2

Printed: 07/29/2010

Revision: 07/23/2010

Supercedes Revision: 04/30/1999

CHRONIC HEALTH EFFECTS:

The best evidence that methylene chloride causes cancer is from laboratory studies in which rats, mice and hamsters inhaled methylene chloride 6 hours per day, 5 days per week for 2 years. Methylene chloride exposure produced lung and liver tumors in mice and mammary tumors in rats. No carcinogenic effects of methylene chloride were found in hamsters.

There are also some human epidemiological studies which show an association between occupational exposure to methylene chloride and increases in biliary (bile duct) cancer and a type of brain cancer. Other epidemiological studies have not observed a relationship between methylene chloride exposure and cancer. OSHA interprets these results to mean that there is suggestive (but not absolute) evidence that methylene chloride is a human carcinogen.

Alcohol may enhance the toxic effects of methylene chloride. May cross the placenta. May be excreted in breast milk. Concurrent exposure to carbon monoxide, smoking, or physical activity may increase the level of carboxyhemoglobin in the blood resulting in additive effects.

Methanol has caused birth defects in laboratory animals, but only when inhaled at extremely high vapor concentrations. The relevance of this finding to humans is uncertain.

Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. Prolonged or repeated contact may cause dermatitis.

TARGET ORGANS: liver, kidneys, pancreas, heart, lungs, brain, central nervous system

ROUTES OF ENTRY: Inhalation, skin absorption, skin contact, eye contact.

Signs and Symptoms Of Exposure

See Potential Health Effects.

Medical Conditions Generally Aggravated By Exposure

Disorders of the heart or cardiovascular system, kidneys, liver, nervous system, respiratory system (including asthma), skin, and allergies.

3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration
1. Dichloromethane (Methylene chloride)	75-09-2	60.0 -100.0 %
2. Methanol (Methyl alcohol; Carbinol; Wood alcohol)	67-56-1	3.0 -7.0 %
3. Liquefied petroleum gas, sweetened (propane, isobutane, n-butane)	68476-86-8	~25.0 %

Additional Chemical Information

The concentration range values for the liquid ingredients do not reflect the dilution of the propellant in the container. The concentration values are for the liquid concentrate only.

4. First Aid Measures

Emergency and First Aid Procedures

Skin:

Remove contaminated clothing. Immediately wash skin thoroughly with large amounts of water and mild soap, if available. Seek medical attention if irritation develops or persists.

Eyes:

Immediately begin to flush eyes with water, remove any contact lens. Continue to flush the eyes for at least 15 minutes. Seek medical attention.

Inhalation:

MATERIAL SAFETY DATA SHEET

Klean-Strip Peeler

Page: 3

Printed: 07/29/2010

Revision: 07/23/2010

Supersedes Revision: 04/30/1999

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

Ingestion:

If swallowed, do NOT induce vomiting. Seek immediate medical attention. Call a physician, hospital emergency room, or poison control center immediately. Never give anything by mouth to an unconscious person.

Note to Physician

THIS PRODUCT CONTAINS METHYLENE CHLORIDE AND LESS THAN 4% METHANOL.

This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis. Adrenalin should never be given to a person overexposed to methylene chloride.

Methylene Chloride is an aspiration hazard. Risk of aspiration must be weighed against possible toxicity of the material when determining whether to induce emesis or to perform gastric lavage. This material sensitizes the heart to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. This material is metabolized to carbon monoxide. Consequently, elevations in carboxyhemoglobin as high as 50% have been reported, and levels may continue to rise for several hours after exposure has ceased. Data in experimental animals suggest there is a narrow margin between concentrations causing anesthesia and death.

5. Fire Fighting Measures

Flammability Classification:

Level 1 Aerosol

Flash Pt:

No data.

Explosive Limits:

LEL: No data.

UEL: No data.

Special Fire Fighting Procedures

Self-contained respiratory protection should be provided for fire fighters fighting fire in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

Unusual Fire and Explosion Hazards

FLASHPOINT OF LIQUID CONCENTRATE: NO FLASH TO BOILING.

FLASHPOINT OF PROPELLANT: -142 F

Liquid concentrate may form flammable vapor-air mixtures at approximately 100 deg. C (212 deg. F), or higher.

Hazardous Combustion Products

carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, phosgene

Suitable Extinguishing Media

Use carbon dioxide, dry powder, or foam.

Unsuitable Extinguishing Media

None known.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled

Clean up: Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area. Use non-sparking tools. Use proper bonding and grounding methods for all equipment and processes. Keep out of waterways and bodies of water. Be cautious of vapors collecting in small enclosed spaces, sewers, low lying areas, confined spaces, etc.

Small spills: Take up with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable.

Large spills: Dike far ahead of spill for later collection and reuse or disposal.

Waste Disposal: Dispose in accordance with applicable local, state and federal regulations.

7. Handling and Storage

Precautions To Be Taken in Handling

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all local, state, and federal regulations. Do not reuse this container.

Do not puncture or incinerate container.

Exposure to heat or prolonged exposure to sun can cause bursting.

Do not use this product near any source of heat or open flame, furnace areas, pilot lights, stoves, etc.

Do not use in small enclosed spaces, such as basements and bathrooms. Vapors can accumulate and explode if ignited.

Avoid contact with the skin, eyes, and clothing. Avoid breathing of vapors.

Precautions To Be Taken in Storing

Store in a cool, dry place. Exposure to high temperatures or prolonged exposure to sun may cause can to rupture. Do not store near flames or at elevated temperatures.

8. Exposure Controls/Personal Protection

Hazardous Components (Chemical Name)	CAS #	OSHA TWA	ACGIH TWA	Other Limits
1. Dichloromethane {Methylene chloride}	75-09-2	PEL: 25 ppm STEL: 125 ppm (15 min)	TLV: 50 ppm	No data.
2. Methanol {Methyl alcohol; Carbinol; Wood alcohol}	67-56-1	PEL: 200 ppm	TLV: 200 ppm STEL: 250 ppm	No data.
3. Liquefied petroleum gas, sweetened {propane, isobutane, n-butane}	68476-86-8	No data.	No data.	No data.

Respiratory Equipment (Specify Type)

For use in areas with inadequate ventilation or fresh air, wear a properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors.

For OSHA controlled work places and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding the appropriate TLV.

MATERIAL SAFETY DATA SHEET

Klean-Strip Peeler

Page: 5

Printed: 07/29/2010

Revision: 07/23/2010

Supersedes Revision: 04/30/1999

A dust mask does not provide protection against vapors.

Eye Protection

Wear chemical splash goggles to protect the eyes from contact with liquid. Wearing safety glasses with a face shield can also provide protection to the face and eyes from spraying, spattering, or splashing liquid.

Protective Gloves

Wear gloves with as much resistance to the chemical ingredients as possible. Laminate film gloves offer the best protection. Other glove materials will be degraded by methylene chloride, but may provide protection for some amount of time, based on the type of glove and the conditions of use. Solvent-resistant gloves, such as nitrile rubber can offer protection. Consult your glove supplier for additional information. Gloves contaminated with product should be discarded and not reused.

Other Protective Clothing

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.

Ventilation

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Use only with adequate ventilation to prevent buildup of vapors. Do not use in areas where vapors can accumulate and concentrate, such as basements, bathrooms or small enclosed areas. Whenever possible, use outdoors in an open air area. If using indoors open all windows and doors and maintain a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea or eye-watering -- STOP -- ventilation is inadequate. Leave area immediately and move to fresh air.

Work/Hygienic/Maintenance Practices

Wash hands thoroughly after use and before eating, drinking, or smoking.

Do not eat, drink, or smoke in the work area.

Discard any clothing or other protective equipment that cannot be decontaminated.

Facilities storing or handling this material should be equipped with an emergency eyewash and safety shower.

9. Physical and Chemical Properties

Physical States:	[X] Gas	[X] Liquid	[] Solid
Melting Point:	No data.		
Boiling Point:	104.00 F		
Autoignition Pt:	No data.		
Flash Pt:	No data.		
Explosive Limits:	LEL: No data.	UEL: No data.	
Specific Gravity (Water = 1):	No data.		
Density:	10.64 LB/GL		
Bulk density:	No data.		
Vapor Pressure (vs. Air or mm Hg):	420 MM HG		
Vapor Density (vs. Air = 1):	> 1		
Evaporation Rate (vs Butyl Acetate=1):	< 1		
Solubility in Water:	slight		
Percent Volatile:	< 2.0 % by weight.		
VOC / Volume:	27.9000 % WT		

MATERIAL SAFETY DATA SHEET

Klean-Strip Peeler

Page: 6

Printed: 07/29/2010

Revision: 07/23/2010

Supersedes Revision: 04/30/1999

Heat Value: No data.
Particle Size: No data.
Corrosion Rate: No data.
pH: No data.

Appearance and Odor

Transparent viscous liquid.

10. Stability and Reactivity

Stability: Unstable [] Stable [X]

Conditions To Avoid - Instability

No data available.

Incompatibility - Materials To Avoid

Bases, oxygen, sodium, potassium, strong acids, strong oxidizers, reactive metals

Hazardous Decomposition Or Byproducts

Thermal decomposition may produce hydrogen chloride, chlorine gas, small quantities of phosgene, carbon monoxide, carbon dioxide, and unidentified organic compounds in black smoke.

Possibility of Hazardous Reactions: Will occur [] Will not occur [X]

Conditions To Avoid - Hazardous Reactions

No data available.

11. Toxicological Information

This product has not been tested as a whole. Information below will be for individual ingredients.

Methylene Chloride:

ACUTE TOXICITY:

LC50 Rat inhalation 52 mg/L 4 hrs

LD50 Rat oral 985-1600 mg/kg

SKIN CORROSION / IRRITATION:

810 mg/24 hr skin rabbit - severe

100 mg/24 hr skin rabbit - moderate

SERIOUS EYE DAMAGE / IRRITATION:

162 mg eyes rabbit - moderate

10 mg eyes rabbit - mild

500 mg/24 hr eyes rabbit - mild

RESPIRATORY OR SKIN SENSITIZATION: Not a respiratory or skin sensitizer.

ASPIRATION HAZARD: Methylene chloride does present an aspiration hazard.

MUTAGENIC DATA: Positive results have been observed in the Ames test. In mammalian systems, responses have generally been negative.

IMMUNOTOXICITY: A study found there was no evidence of harm to the immune system of laboratory animals or reduced ability to combat disease.

NEUROTOXICITY: Tests in rats indicate no significant neurotoxic effects after exposure to concentrations up to 2,000 ppm for 90 days. No neurotoxic effects have been observed in humans at typical occupational exposure levels.

DEVELOPMENTAL/REPRODUCTIVE: No significant developmental effects were observed in female rats and mice exposed to 1,250 ppm during gestation. A similar result was observed in rats exposed to 4,500 ppm before and during gestation. A two-generation inhalation study showed no adverse reproductive effects in rats exposed to as much as 1,500 ppm for 14 weeks.

CARCINOGEN STATUS: Methylene chloride is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) that are not considered relevant to worker exposure. Available epidemiological studies do not confirm an increased risk of cancer in humans.

Available evidence suggests that this material is not likely to cause cancer in humans except under uncommon or

unlikely routes or levels of exposure.

Methanol:

ACUTE TOXICITY:

LD50 Rat oral 5628 mg/kg

LC50 Rat inhalation 64000 ppm/4 hr

LC50 Rat inhalation 87.5 mg/L/6 hr

LD50 Mouse oral 7300 mg/kg

SKIN CORROSION / IRRITATION: LD50 Rabbit dermal 15,800 mg/kg bw

SERIOUS EYE DAMAGE / IRRITATION: Methanol is a mild to moderate eye irritant.

RESPIRATORY OR SKIN SENSITIZATION: Not a respiratory or skin sensitizer.

ASPIRATION HAZARD: Methanol presents an aspiration hazard.

MUTAGENIC DATA: No data.

IMMUNOTOXICITY: No data.

NEUROTOXICITY: Overexposure to methanol has been suggested as causing central nervous system damage in laboratory animals.

DEVELOPMENTAL/REPRODUCTIVE: The inhalation of methanol by pregnant rodents throughout the period of embryogenesis induces a wide range of concentration-dependent teratogenic and embryo-lethal effects.

Methanol has caused birth defects in laboratory animals, but only when inhaled at extremely high vapor concentrations. The relevance of this finding to humans is uncertain.

CARCINOGEN STATUS: There is no evidence from animal studies to suggest methanol is a carcinogen.

Chronic Toxicological Effects

This product has not been tested as a whole.

Carcinogenicity/Other Information

IARC 2B - Possibly Carcinogenic to Humans

ACGIH A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Dichloromethane {Methylene chloride}	75-09-2	Possible	2B	A3	Yes
2. Methanol {Methyl alcohol; Carbinol; Wood alcohol}	67-56-1	n.a.	n.a.	n.a.	n.a.
3. Liquefied petroleum gas, sweetened {propane, isobutane, n-butane}	68476-86-8	n.a.	n.a.	n.a.	n.a.

12. Ecological Information

This product has not been tested as a whole. Information below will be for individual ingredients.

Methylene Chloride:

TOXICITY: LC50 310 mg/L 96 hrs (static) Fathead Minnow; LC50 220 mg/L 96 hrs (static) Bluegill Sunfish; LC50 256 mg/L 96 hrs Mysid Shrimp

PERSISTENCE AND DEGRADABILITY: If released to air, a vapor pressure of 435 mm Hg at 25 deg C indicates dichloromethane will exist solely as a vapor in the ambient atmosphere. This material released to the atmosphere will degrade by reaction with hydroxyl radicals with a half-life of several months. It is not subject to direct photooxidation. On land is expected to evaporate rapidly into the atmosphere due to its high vapor pressure. It is poorly adsorbed to soil and can leach into the groundwater. Calculated Adsorption Coefficient (log KOC) is 1. This material is subject to rapid evaporation, with estimated evaporative half-lives ranging from 3 to 5.6 hours under moderate mixing conditions. This material has a negligible rate of hydrolysis.

Biodegradation may occur in groundwater, but will be very slow compared with evaporation.

BIOACCUMULATIVE POTENTIAL: Bioconcentration potential in aquatic organisms is low with BCF of 2.

MOBILITY IN SOIL: If released to soil, dichloromethane is expected to have very high mobility based upon an estimated Koc of 24.

OTHER ADVERSE EFFECTS: No data.

Methanol:

TOXICITY: Methanol is of low toxicity to aquatic organisms. LC50 Pimephales promelas (fathead minnows) 29.4 g/L/96 hr, (28-29 days old), confidence limit= 28.5-30.4; Test conditions: Water temp= 25 deg C, dissolved oxygen= 7.3 mg/L, water hardness= 43.5 mg/l calcium carbonate, alkalinity= 46.6 calcium carbonate, tank volume= 6.3 L, additions= 5.71 V/D, pH= 7.66 (0.03).

PERSISTENCE AND DEGRADABILITY: If released to the atmosphere, a vapor pressure of 127 mm Hg at 25 deg C indicates that methanol will exist solely in the vapor phase. Vapor phase methanol is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 17 days. Volatilization from moist soil surfaces is expected to be an important fate process based upon a Henry's Law constant of 4.55X10⁻⁶ atm-cu m/mole. Methanol may also volatilize from dry soils based upon its vapor pressure. Biodegradation of methanol in soils is expected to occur rapidly based on half-lives in a sandy silt loam from Texas and a sandy loam from Mississippi of 1 and 3.2 days, respectively. If released into water, methanol is not expected to adsorb to suspended solids and sediment based upon the estimated Koc. Volatilization from water surfaces is expected to be an important fate process based upon this compound's Henry's Law constant. Estimated volatilization half-lives for a model river and model lake are 3 and 35 days, respectively. Biodegradation is expected to occur in natural waters since methanol is degraded quickly in soils and was biodegraded rapidly in various aqueous screening tests using sewage seed or activated sludge. Hydrolysis of methanol and photolysis in sunlit surface waters are not expected since methanol lacks functional groups that are susceptible to hydrolysis or photolysis under environmental conditions.

BIOACCUMULATIVE POTENTIAL: BCF values of less than 10, measured in fish suggests bioconcentration in aquatic organisms is low.

MOBILITY IN SOIL: If released to soil, methanol is expected to have very high mobility based upon an estimated Koc of 1.

13. Disposal Considerations

Waste Disposal Method

Dispose in accordance with applicable local, state and federal regulations.

14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name Aerosols, flammable

Level 1 Aerosol

DOT Hazard Label: FLAMMABLE GAS

UN/NA Number: UN1950

DOT Hazard Class: 2.1

Additional Transport Information

For D.O.T. information, contact W.M. Barr Technical Services at 1-800-398-3892.

The shipper/supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

MATERIAL SAFETY DATA SHEET

Klean-Strip Peeler

Page: 9

Printed: 07/29/2010

Revision: 07/23/2010

Supercedes Revision: 04/30/1999

15. Regulatory Information

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Dichloromethane (Methylene chloride)	75-09-2	No	Yes 1000 LB	Yes	Yes
2. Methanol (Methyl alcohol; Carbinol; Wood alcohol)	67-56-1	No	Yes 5000 LB	Yes	No
3. Liquefied petroleum gas, sweetened (propane, isobutane, n-butane)	68476-86-8	No	No	No	No

US EPA CAA, CWA, TSCA

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. Dichloromethane (Methylene chloride)	75-09-2	HAP, ODC ()	Yes	Inventory, 8A CAIR	Yes
2. Methanol (Methyl alcohol; Carbinol; Wood alcohol)	67-56-1	HAP, ODC ()	No	Inventory	No
3. Liquefied petroleum gas, sweetened (propane, isobutane, n-butane)	68476-86-8	HAP, ODC ()	No	Inventory	No

EPA Hazard Categories:

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

- Yes No Acute (immediate) Health Hazard
- Yes No Chronic (delayed) Health Hazard
- Yes No Fire Hazard
- Yes No Sudden Release of Pressure Hazard
- Yes No Reactive Hazard

16. Other Information

Company Policy or Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. 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.