| FLAMMABLE LIQUD | HEALTH FLAMMABILITY PHYSICAL PPE | Tamma 1 3 0 Health X | Instability Instability Special Hazard | Rev | nted: 07/05/2011 ision: 06/01/2011 |
|---|--|---------------------------------------|--|------------------------------------|--|
| 1. P | roduct and | Company I | dentificatio | n | |
| Product Code: | 1636 | | | | |
| Product Name: | Klean-Strip MI | EK Substitute | | | |
| Manufacturer Information | | | | | |
| Company Name: | W. M. Barr 2105 Channel Memphis, TN | | | | |
| Phone Number: | (901)775-0100 |) | | | |
| Emergency Contact: | 3E 24 Hour E | mergency Cont | act (800)4 | 51-8346 | |
| Information: | W.M. Barr Cus | stomer Service | (800)398 | -3892 | |
| Web site address: | www.wmbarr.o | com | | | |
| Preparer Name: | W.M. Barr EH | S Dept | (901)775-01 | 100 | |
| Synonyms GME71SUB, QME71SUB, CM | IE71SUB | | | | |
| 2. Cor | nposition/In | formation | on Ingredie | ents | |
| Hazardous Components (Chemical Name) 1. Acetic acid, ethyl ester {Ethyl acetate} Hazardous Components (Chemical Name) | RTECS # | Concentration 100.0 % OSHA STEL | OSHA PEL 400 ppm OSHA CEIL | ACGIH TLV 400 ppm ACGIH STEL | Other Limits No data. ACGIH CEIL |
| I. Acetic acid, ethyl ester {Ethyl acetate} | AH5425000 | ds Identific | No data. | No data. | No data. |
| Emergency Overview Warning! Flammable Liquid ar | | | | | |
| | | | | a wata was two at | |
| High vapor concentrations may | cause drowsines | s and irritation of | of the eyes or resp | piratory tract. | |
| Prolonged or repeated skin con Route(s) of Entry: Potential Health Effects (Acute and No data available. | tact may cause dr Inhalation? Ye | ying, cracking, | or irritation. | Ingestion? Yes | |
| Prolonged or repeated skin con Route(s) of Entry: Potential Health Effects (Acute and No data available. LD 50 / LC 50 | tact may cause dr Inhalation? Ye I Chronic) | ying, cracking, | or irritation. | | |
| Prolonged or repeated skin con Route(s) of Entry: Potential Health Effects (Acute and No data available. LD 50 / LC 50 Oral LD50 (rat) - 5,600 mg/kg | tact may cause dr Inhalation? Ye d Chronic) | ying, cracking, o s Skin? Yes | or irritation. | | |
| Prolonged or repeated skin con Route(s) of Entry: Potential Health Effects (Acute and No data available. LD 50 / LC 50 Oral LD50 (rat) - 5,600 mg/kg Inhalation LC50 (rat) - 6 h: 16, | tact may cause dr Inhalation? Ye d Chronic) 000 ppm /kg (highest dose | ying, cracking, o s Skin? Yes | or irritation. | | |
| Prolonged or repeated skin con Route(s) of Entry: Potential Health Effects (Acute and No data available. LD 50 / LC 50 Oral LD50 (rat) - 5,600 mg/kg Inhalation LC50 (rat) - 6 h: 16, Dermal LD50 (rabbit) - >20 ml | tact may cause dr Inhalation? Ye d Chronic) 000 ppm /kg (highest dose | ying, cracking, o s Skin? Yes | or irritation. | | |

| Signs and Symptoms Of Exposu No data available. | Ire |
|--|---|
| Medical Conditions Generally Ag | ggravated By Exposure |
| None known. | |
| OSHA Regulatory Status: | |
| This material is classified as | hazardous under OSHA regulations. |
| | 4. First Aid Measures |
| Emergency and First Aid Procee | dures |
| | the skin thoroughly with large amounts of water and mild soap, if available, while ning. Seek medical attention if irritation persists. |
| Eyes: Immediately begin to flush e minutes, then seek immediat | yes with water, remove any contact lens. Continue to flush the eyes for at least 15 e medical attention. |
| Inhalation: Remove to fresh air. If not b immediate medical attention | preathing, give artificial respiration. If breathing is difficult, give oxygen. Get |
| | e vomiting. Seek immediate medical attention. Call a physician, hospital emergency er immediately. Never give anything by mouth to an unconscious person. |
| | 5. Fire Fighting Measures |
| Flammability Classification: | NFPA Class 1B |
| Flash Pt: | 24 F (-4.4 C) Method Used: TAG Closed Cup |
| Explosive Limits: | LEL: 2.2 UEL: 9 |
| Autoignition Pt: | 490 C (905.0 F) |
| areas. Storage containers exp Water spray may be ineffective Flammable Properties and Haza Vapors may form explosive Vapors may travel to source | rds mixtures with air. |
| | |
| Hazardous Combustion Product | |
| Decomposition may produce Extinguishing Media | e carbon monoxide and carbon dioxide. |
| Water spray, dry chemical, c | arbon dioxide or foam |
| Unsuitable Extinguishing Media | |
| None known. | |
| | |

Licensed to W.M. Barr and Company: MIRS MSDS, (c) A V Systems, Inc.

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 disposal.

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

7. Handling and Storage

Precautions To Be Taken in Handling AVOID BREATHING VAPOR

Avoid prolonged or repeated contact with skin.

Use with adequate ventilation.

Wash thoroughly with soap and water after 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 regulations. Do not reuse this container.

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.

Do not spread this product over large surface areas because fire and health safety risks will increase dramatically.

Precautions To Be Taken in Storing

Keep away from heat, sparks and flame.

Keep container tightly closed.

Keep from contact with oxidizing materials.

8. Exposure Controls/Personal Protection

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.

A dust mask does not provide protection against vapors.

Eye Protection

Safety glasses should be worn during normal handling of this material.

Where contact with the eyes or face is likely, a faceshield or chemical splash goggles should be worn to prevent eye contact.

Protective Gloves

Wear gloves with as much resistance to the chemical ingredients as possible. Glove materials such as nitrile rubber may provide protection. Glove selection should be based on chemicals being used and conditions of use. 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.

Engineering Controls (Ventilation etc.)

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

Clothing that becomes soiled with product should be removed as soon as possible and laundered separately.

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. P | hysical and Chemical Properties | | |
|---|--|--|--|
| Physical States: | []Gas [X]Liquid []Solid | | |
| Melting Point: | 83 C (181.4 F) | | |
| Boiling Point: | 78 C (172.4 F) | | |
| Autoignition Pt: | 490 C (905.0 F) | | |
| Flash Pt: | 24 F (-4.4 C) Method Used: TAG Closed Cup | | |
| Explosive Limits: | LEL: 2.2 UEL: 9 | | |
| Specific Gravity (Water = 1): | .89558985 | | |
| Density: | 7.44 - 7.468 LB/GL | | |
| Vapor Pressure (vs. Air or mm Hg): | | | |
| Vapor Density (vs. Air = 1): | 3.04 (Air=1) | | |
| Evaporation Rate (vs Butyl Acetate=1): | 4.1 | | |
| Solubility in Water: | 64 g/l at 25 C (77.0 F) | | |
| Percent Volatile: | 100 % by weight. | | |
| VOC / Volume: | 900 G/L | | |
| HAP / Volume: | NP | | |
| Viscosity: | .44 CP at 25 C (77.0 F) | | |
| Octanol/Water Partition Coefficient: | 0.73 | | |
| Appearance and Odor | | | |
| Clear liquid, sweet odor | | | |
| | 10. Stability and Reactivity | | |
| Stability: | Unstable [] Stable [X] | | |
| Conditions To Avoid - Instability No data available. Incompatibility - Materials To Avoid Incompatible with strong oxidizi Hazardous Decomposition Or Bypro | ng agents. | | |
| No data available. Hazardous Polymerization: | Will occur [] Will not occur [X] | | |
| Conditions To Avoid - Hazardous Pe No data available. | | | |
| | 11. Toxicological Information | | |
| Refer to Hazards Section Chronic Toxicological Effects No data available. | | | |
| Hazardous Components (Chemical Name) 1. Acetic acid, ethyl ester {Ethyl acetate} | CAS # NTP IARC ACGIH OSHA 141-78-6 n.a. n.a. n.a. n.a. | | |
| | 12. Ecological Information | | |
| Oxygen Demand Data | | | |
| BOD-5 1,240 mg/g | | | |
| BOD-20 1,240 mg/g | | | |
| | | | |

| US EPA CAA, CWA, TSCA Hazardous Components (Chemical Name) I. Acetic acid, ethyl ester {Ethyl acetate} SARA (Superfund Amendments and Reauthorization Act of 1986) Lists: | CAS # 141-78-6 | EPA CAA HAP, ODC () | EPA CWA NPDES No | EPA TSCA Inventory | CA PROP 65 No |
|---|---------------------------|----------------------------|----------------------------------|----------------------------|----------------------|
| US EPA CAA, CWA, TSCA Hazardous Components (Chemical Name) 1. Acetic acid, ethyl ester {Ethyl acetate} | 141-78-6 | - | | | |
| US EPA CAA, CWA, TSCA | CAS # | ΕΡΑ CAA | EPA CWA NPDES | EPA TSCA | CA PROP 65 |
| | | | | | |
| Hazardous Components (Chemical Name) . Acetic acid, ethyl ester {Ethyl acetate} | CAS # 141-78-6 | Sec.302 (EHS) No | Sec.304 RQ Yes 5000 LB | Sec.313 (TRI) No | Sec.110 No |
| US EPA SARA Title III | | | | | |
| | 15. Regula | atory Inform | mation | | |
| Limited Quantity, Viscous Liquid Regulations. Please consult 49Cl exceptions. | | | | | |
| The shipper/supplier may apply o | one of the follow | ving exceptions: | : Combustible Liqu | iid, Consumer C | ommodity, |
| Additional Transport Information For D.O.T. information, contact V | W.M. Barr Tech | nnical Services a | at 1-800-398-3892. | | |
| Packing Group: | II | | | | |
| UN/NA Number: | UN1173 | | | | |
| DOT Hazard Label: | FLAMMABLE | LIQUID | | | |
| DOT Hazard Class: | 3 | | | | |
| DOT Proper Shipping Name | Ethyl acetate | | | | |
| LAND TRANSPORT (US DOT) | | | | | |
| | 14. Tr <u>ans</u> | port Inforn | nation | | |
| Waste Disposal Method Dispose in accordance with appli RCRA Waste ID Code: | cable local, stat D001 | e and federal re | gulations. | | |
| | 13. Dispos | al Conside | rations | | |
| 24 h EC-50 (daphnid) 3,090 mg/l | | | | | |
| 24 h LC-50 (daphnid) 3,090 mg/l | l | | | | |
| 48 h LC-50 (golden orfe) 333 mg | g/l | | | | |
| 48 h LC-50 (golden orfe) 270 mg | g/l | | | | |
| Acute Aquatic Effects Data | | | | | |
| ThBOD 1,820 mg/g | | | | | |
| COD 1,540 mg/g | | | | | |
| COD 1,540 mg/g | | | | | |

| Sec.304: | EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. ** |
|-----------------------------|---|
| | indicates statutory RQ. |
| Sec.313: | EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category. |
| Sec.110: | EPA SARA 110 Superfund Site Priority Contaminant List |
| TSCA (Toxic Substances C | Control |
| Act) Lists: | |
| Inventory: | Chemical Listed in the TSCA Inventory. |
| 5A(2): | Chemical Subject to Significant New Rules (SNURS) |
| 6A: | Commercial Chemical Control Rules |
| 8A: | Toxic Substances Subject To Information Rules on Production |
| 8A CAIR: | Comprehensive Assessment Information Rules - (CAIR) |
| 8A PAIR: | Preliminary Assessment Information Rules - (PAIR) |
| 8C: | Records of Allegations of Significant Adverse Reactions |
| 8D: | Health and Safety Data Reporting Rules |
| 8D TERM: | Health and Safety Data Reporting Rule Terminations |
| 12(b): | Notice of Export |
| Other Important Lists: | |
| CWA NPDES: | EPA Clean Water Act NPDES Permit Chemical |
| CAA HAP: | EPA Clean Air Act Hazardous Air Pollutant |
| CAA ODC: | EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC) |
| CA PROP 65: | California Proposition 65 |
| International Regulatory Li | sts: |
| EPA Hazard Categories: | |
| This material meets the | e EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated: |
| | [X] Yes [] No Acute (immediate) Health Hazard |
| | [] Yes [X] No Chronic (delayed) Health Hazard |
| | [X] Yes [] No Fire Hazard |
| | [] Yes [X] No Sudden Release of Pressure Hazard |
| | [] Yes [X] 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.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required