**SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION**

**MANUFACTURER'S NAME**
W.M. BARR & COMPANY, INC.

**ADDRESS**
2105 Channel Ave.
Memphis, TN 38113 USA

**EMERGENCY TELEPHONE #1**
901-775-0100

**EMERGENCY CONTACT**
W.M. Barr Technical Services

**INVENTORY ITEM #**
GKK5.1

**CHEMICAL FORMULA**
129.2

**PRODUCT NAME**
KLEAN-STRIP™ KLEAN-KUTTER RMVR

**REVISED BY**
W.M. Barr Technical Services

**REVISION DATE**
05/14/1995

**SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>SUBSTANCE DESCRIPTION</th>
<th>PERCENT</th>
<th>CAS#</th>
<th>NTP</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>IARC</th>
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</thead>
<tbody>
<tr>
<td>METHANOL</td>
<td>20-25</td>
<td>67-55-1</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
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<tr>
<td>ACETONE</td>
<td>20-25</td>
<td>67-64-1</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
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<tr>
<td>TOLUENE</td>
<td>15-20</td>
<td>108-88-3</td>
<td>N</td>
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<td>N</td>
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<tr>
<td>METHYLENE CHLORIDE</td>
<td>34-39</td>
<td>75-09-2</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
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</tbody>
</table>

**SECTION 3. REGULATORY INFORMATION**

**EXPOSURE LIMITS/REGULATORY INFORMATION**

<table>
<thead>
<tr>
<th>SUBSTANCE DESCRIPTION</th>
<th>REG. AGGY U/M</th>
<th>TWA</th>
<th>STEL</th>
<th>CEIL</th>
<th>SKIN</th>
<th>PEL</th>
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<tbody>
<tr>
<td>METHANOL</td>
<td>ACGIH PPM</td>
<td>200.00</td>
<td>250.00</td>
<td>N/E</td>
<td>Y</td>
<td>N/E</td>
</tr>
<tr>
<td>OSHA PPM</td>
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<td>250.00</td>
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<td>Y</td>
<td>200.00</td>
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<tr>
<td>ACETONE</td>
<td>ACGIH PPM</td>
<td>750.00</td>
<td>1000.00</td>
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<td>N</td>
<td>N/E</td>
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<tr>
<td>OSHA PPM</td>
<td>N/E</td>
<td>1000.00</td>
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<tr>
<td>TOLUENE</td>
<td>ACGIH PPM</td>
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<td>N/E</td>
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<tr>
<td>OSHA PPM</td>
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<td>150.00</td>
<td>N/E</td>
<td>300.00</td>
<td>200.00</td>
<td></td>
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</tbody>
</table>

OSHA PEAK CONCENTRATION FOR 8 HR. SHIFT: 500 PPM FOR 10 MINUTES.

METHYLENE CHLORIDE HAS CAUSED CANCER IN CERTAIN LABORATORY ANIMAL TESTS.

**ADDITIONAL REGULATORY INFO**

The time weighted average (TWA) value described herein is a threshold limit value (TLV) as established by ACGIH. The permissible exposure limit (PEL) is a value established by OSHA.
SECTION 3. REGULATORY INFORMATION
(CONTINUED)

CALIFORNIA (PROPOSITION #55)
WARNING: Using this product will expose you to Methylene Chloride, which is known to cause cancer; and Toluene, which is known to cause birth defects or other reproductive harm.

SEC. 313 SUPPLIER NOTIFICATION
The following information must be included in all MSDS that are copied and distributed for this material.

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40CFR 372):

<table>
<thead>
<tr>
<th>SUBSTANCE DESCRIPTION</th>
<th>PERCENT BY WEIGHT</th>
<th>CAS#</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHANOL</td>
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<td>67-56-1</td>
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<tr>
<td>ACETONE</td>
<td>25</td>
<td>67-64-1</td>
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<tr>
<td>TOLUENE</td>
<td>20</td>
<td>108-88-3</td>
</tr>
<tr>
<td>METHYLENE CHLORIDE</td>
<td>39</td>
<td>75-09-2</td>
</tr>
</tbody>
</table>

CLEAN AIR ACT
This formula contains no known ozone depleting chemicals.

HAZARD COMMUNICATION STANDARD
This document is prepared in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200). This MSDS contains thirteen (13) sections.

The following effects and/or symptoms are not expected to be experienced by persons who use this product properly and according to ALL instructions, precautions, and warnings; however, should the product user experience ANY questionable effects or symptoms, the product user should immediately seek medical attention.

SECTION 4. HAZARDS IDENTIFICATION

INHALATION ACUTE EXPOSURE EFFECTS
Vapor harmful. May cause dizziness; headache; watering of eyes; drowsiness; irritation of respiratory tract; weakness; nausea; muscle twitches; numbness in fingers, arms, and legs; depression of central nervous system; irritation of eyes; hot flashes; loss of appetite; spotted vision; fatigue; dilation of pupils; increase of peroxymyoglobin levels, which can cause stress to the cardiovascular system; pain in the legs and chest pain; vomiting; loss of coordination; visual disturbances; giddiness and intoxication; sleepiness; cough and dyspnea; cold, clammy extremities; diarrhea; hallucinations; light-headedness; anesthesia; confusion; confusion; brain damage; irregular or rapid heartbeat; convulsions; unconsciousness; coma; and death.

Intentional misuse of this product by deliberately concentrating and inhaling can be harmful or fatal. Elevated carboxyhemoglobin levels can be additive to the increase caused by smoking and other carbon monoxide sources.

SKIN CONTACT ACUTE EXPOSURE EFFECTS
This product is a skin irritant. May be absorbed through the skin, if contact with skin is prolonged. May cause irritation, drying and cracking of skin; numbness in fingers and arms; deafening of skin; burning; redness; and dermatitis.

May cause additional symptoms listed under inhalation. May increase severity of symptoms listed under inhalation.
SECTION 4. HAZARDS IDENTIFICATION (CONTINUED)

EYE CONTACT ACUTE EXPOSURE EFFECTS
This material is an eye irritant. May cause irritation; redness; tearing; blurred vision; burns; stinging; swelling; temporary corneal damage; conjunctivitis of eyes; and corneal ulcerations of the eye. Vapors may irritate eyes.

INGESTION ACUTE EXPOSURE EFFECTS
POISON. CANNOT BE MADE NON-POISONOUS. May be fatal or cause blindness. Harmful or fatal if swallowed. May cause dizziness; headache; nausea; vomiting; loss of coordination; drowsiness; weakness; stupor; irritation and burning sensation in mouth, throat, and stomach; gastrointestinal irritation; fatigue; depression of the central nervous system; narcosis; diarrhea; loss of appetite; liver, kidney, and heart damage; coma; and death. May produce symptoms listed under inhalation. Liquid aspirated into lungs, during vomiting, may cause chemical pneumonia and systemic effects.

CHRONIC EXPOSURE EFFECTS
Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. Prolonged or repeated contact may cause dermatitis. Prolonged skin contact may result in absorption of a harmful amount of this material. May cause giddiness; insomnia; gastric disturbances; dizziness; headache; weakness; fatigue; nausea; skin irritation; numbness in hands and feet; pancreatic damage; permanent central nervous system changes; decreased response to visual and auditory stimulation; some loss of memory; visual impairment or blindness; brain damage; redness, burning and cracking of skin; conjunctivitis; anemia; hallucinations; changes in blood; jaundice; bone marrow damage; kidney damage; liver damage; heart palpitations; blood disorders; and death. May cause additional symptoms listed under inhalation.

MEDICAL CONDITIONS AGGRAVATED
Diseases of the blood, skin, eyes, liver, kidneys, lungs, cardiovascular system and respiratory system; alcoholism and rhythm disorders of the heart.

PRIMARY ROUTE OF EXPOSURE
Inhalation, ingestion, and dermal.

SECTION 5. FIRST AID MEASURES

INHALATION
If user experiences breathing difficulty, move to air free of vapors. Administer oxygen or artificial respiration until medical assistance can be rendered.

SKIN CONTACT
Wash with soap and large quantities of water and seek medical attention if irritation from contact persists.

EYE CONTACT
Flush with large quantities of water for at least 15 minutes and seek immediate medical attention.

INGESTION
Call your poison control center, hospital emergency room or physician immediately for instructions to induce vomiting.

NOTE TO PHYSICIAN
POISON. THIS PRODUCT CONTAINS METHANOL AND METHYLENE CHLORIDE. Methanol is metabolized to formaldehyde and formic acid. These metabolites may cause metabolic acidosis, visual disturbances, and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 5 to 30 hours following ingestion.
SECTION 5. FIRST AID MEASURES

(continued)

Ethanol competes for the same metabolic pathway and has been used as an antidote. Methanol is effectively removed by hemodialysis. Adrenaline should never be given to a person overexposed to methylene chloride. This formula is registered with POISINDEX. Call your local poison control center for further information.

SECTION 6. FIRE FIGHTING MEASURES

HAZARD RATING SOURCE HMIS NFPA
HEALTH 2 2
FLAMMABILITY 3 3
REACTIVITY 0 0
OTHER C NA

FLASH METHOD
Seta

FLASH POINT 1.00 F -17.22 C

LOWER EXPLOSION LIMIT .9

GENERAL COMMENTS
OSHA FLAMMABILITY: Class IB

EXTINGUISHING METHOD
Use carbon dioxide, dry powder, or foam.

FIRE FIGHTING PROCEDURES
Self-contained respiratory protection should be provided for fire fighters fighting fires 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.

FIRE AND EXPLOSION HAZARDS
DANGER! EXTREMELY FLAMMABLE. KEEP AWAY FROM HEAT, SPARKS, FLAME AND ALL OTHER SOURCES OF IGNITION. VAPORS MAY CAUSE FLASH FIRE OR IGNITE EXPLOSIVELY. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and all other sources of ignition during use and until all vapors are gone. Beware of static electricity that may be generated by synthetic clothing and other sources. Contact of liquid or vapor with flame or hot surfaces will produce toxic gases and a corrosive residue that will cause deterioration of metal.

SECTION 7. ACCIDENTAL RELEASE MEASURES

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 fires, smoking or flames out of hazard area. SMALL SPILLS: take up liquid with sand, earth or other noncommtabile absorbent material and place in a plastic container where applicable. LARGE SPILLS: dike far ahead of spill for later disposal.

For transportation-related spills contact Chemtrec at 1-800-424-9300 for emergency assistance.
SECTION 7. ACCIDENTAL RELEASE MEASURES
(continued)

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

SECTION 8. HANDLING AND STORAGE

STORAGE
Store in a cool, dry place. Exposure to high temperatures or prolonged exposure to sun may cause can to leak or swell. Once opened, remover should be used within six months or discarded to avoid can deterioration. Do not store near flammes or at elevated temperatures.

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.

SECTION 9. TRANSPORT INFORMATION

TRANSPORTATION
For D.O.T. information, contact W.M. Barr Technical Services Department.

SECTION 10. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION PROTECTION
Use only with adequate ventilation to prevent build-up of vapors. Open all windows and doors. Use only with 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.

RESPIRATORY PROTECTION
For OSHA controlled work place and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV. For occasional use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved self-contained breathing apparatus for chlorinated solvent vapors. A dust mask does not provide protection against vapors.

SKIN PROTECTION
Wear impermeable gloves. Gloves contaminated with product should be discarded. Promptly remove clothing that becomes soiled with product.

EYE PROTECTION
Safety glasses, chemical goggles or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn while working with chemicals.

OTHER PROTECTION
Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure. A source of clean water should be available in the work area for flushing eyes and skin. Do not eat, drink, or smoke in the work area. Wash hands thoroughly after use. Before reuse, thoroughly clean and flush any protective equipment that has been contaminated by prior use. Discard any clothing or other protective equipment that cannot be decontaminated, such as gloves or shoes.
SECTION 11. PHYSICAL AND CHEMICAL PROPERTIES

VOLATILE %
99.10 by weight

BOILING POINT
GT 103.00 F
39.44 C BOILING RANGE: 103 F - 265 F

VAPOR DENSITY (Air = 1.0)
Heavier than air

EVAPORATION RATE
Slower than ether

BULK DENSITY
7.797
Lbs/gal at 75 degrees F

PHOTOCHEMICALLY REACTIVE
NO

MAX V.O.C.
599 grams per liter (excluding exempt solvents and water)

MAX VAPOR PRESSURE
(of the V.O.C.) 84mm Hg at 20 degrees C

SECTION 12. STABILITY AND REACTIVITY

INCOMPATIBILITIES
Incompatible with strong oxidizing agents; strong caustics; chemically active metals such as aluminum or magnesium; sodium; potassium; nitric acid; reducing agents; halogens; molten sulphur; strong alkalies; oxygen; nitrogen peroxide.

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

POLYMERIZATION
Will not occur.

STABILITY
Stable.

SECTION 13. ADDITIONAL INFORMATION

IMPORTANT NOTE
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 data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

LEGEND:
PPM = parts per million
MG/M3 = milligrams per cubic meter
N/E or NE = none established
GT = greater than
N/A or NA = not applicable
SECTION 13. ADDITIONAL INFORMATION
(CONTINUED)

TCC = tag closed cup
TOC = tag open cup
PMCC = Pensky-Martens closed cup
IDLH = Immediately Dangerous to Life and Health

***END OF MSDS***