SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SAFETY-KLEEN 105 SOLVENT RECYCLED

SYNONYMS: Parts Washer Solvent; Petroleum Distillates; Petroleum Naphtha; Naphtha, Solvent; Stoddard Solvent; Mineral Spirits.

PRODUCT CODE: 6614

PRODUCT USE: Cleaning and degreasing metal parts.
If this product is used in combination with other products, refer to the Material Safety Data Sheet for those products.
FOR COMMERCIAL USE ONLY.

24-HOUR EMERGENCY PHONE NUMBERS
These numbers are for emergency use only. If you desire non-emergency product information, please call a phone number listed below.

MEDICAL: 1-800-468-1760
TRANSPORTATION (SPILL): 1-800-468-1760

SUPPLIER: Safety-Kleen Systems, Inc.
5400 Legacy Drive
Cluster II, Building 3
Plano, Texas 75024
USA
1-800-669-5740
www.Safety-Kleen.com

TECHNICAL INFORMATION: 1-800-669-5740 Press 1 then 1 then Enter 7500

MSDS FORM NUMBER: 82310
ISSUE: October 21, 2005

ORIGINAL ISSUE: April 8, 1976
SUPERSEDES: August 11, 2005

PREPARED BY: Product MSDS Coordinator
APPROVED BY: MSDS Task Force
SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>WT%</th>
<th>NAME</th>
<th>SYNONYM</th>
<th>CAS NO.</th>
<th>OSHA PEL**</th>
<th>ACGIH TLV®</th>
</tr>
</thead>
<tbody>
<tr>
<td>99-100</td>
<td>Distillates (petroleum), hydrotreated light</td>
<td>N. Av.</td>
<td>64742-47-8</td>
<td>500 ppm 2900 ppm</td>
<td>N. Av. 100 ppm</td>
</tr>
<tr>
<td></td>
<td>99-100 Distillates (petroleum), hydrotreated light</td>
<td>N. Av.</td>
<td>64742-47-8</td>
<td>500 ppm 2900 ppm</td>
<td>N. Av. 100 ppm</td>
</tr>
<tr>
<td>0-0.2</td>
<td>Tetrachloroethylene</td>
<td>Perchloroethylene; Tetrachloroethene</td>
<td>127-18-4</td>
<td>100 ppm 200 (ceiling) 25 100 2629</td>
<td>34.2 g/m³/8h</td>
</tr>
</tbody>
</table>

**OSHA Final PEL value (enforceable). Some States have adopted more stringent values.

N. Av. = Not Available

* Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE
Liquid, clear and green, mild hydrocarbon odor.

WARNING!

PHYSICAL HAZARDS
Combustible liquid and vapor.

HEALTH HAZARDS
May be harmful if inhaled.
May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.
May be harmful if swallowed.
Contains material that may cause central nervous system and kidney damage.
Contains material which may cause birth defects.
Suspect cancer hazard. Contains material (less than 0.2% by weight) which may cause cancer. Risk of cancer depends on duration and level of exposure.

ENVIRONMENTAL HAZARDS
Toxic to fish.
POTENTIAL HEALTH EFFECTS

INGESTION (SWALLOWING): May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
Individuals with pre-existing respiratory tract (nose, throat, and lungs), central nervous system, kidney, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

CHRONIC: Prolonged or repeated inhalation may cause toxic effects as noted under INHALATION (BREATHEING). Prolonged or repeated exposure may cause central nervous system and kidney damage or have mutagenic effects. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis). Contains material which may cause birth defects.

CANCER INFORMATION: This product contains tetrachloroethylene which may cause cancer. Risk of cancer depends on duration and level of exposure. For more information, see SECTION 11: CARCINOGENICITY.

Also see SECTION 15: CALIFORNIA.

POTENTIAL ENVIRONMENTAL EFFECTS
Product is toxic to fish. Also see SECTION 12: ECOLOGICAL INFORMATION.

SECTION 4: FIRST AID MEASURES

INGHALATION (BREATHING): Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.
EYES: If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

SKIN: Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists.

INGESTION (SWALLOWING): Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIANS: Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: 105°F (40°C) Tag Closed Cup

FLAMMABLE LIMITS IN AIR: LOWER: 0.7 VOL% (minimum) UPPER: 5 VOL% (maximum)

AUTOIGNITION TEMPERATURE: 410°F (210°C) (minimum)

HAZARDOUS COMBUSTION PRODUCTS: Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds.

CONDITIONS OF FLAMMABILITY: Heat, sparks, or flame.

EXTINGUISHING MEDIA: Carbon dioxide, regular foam, dry chemical, water spray, or water fog.
NFPA 704
HAZARD IDENTIFICATION:  This information is intended solely for the use by individuals trained in this system.

FIRE FIGHTING INSTRUCTIONS:  Keep storage containers cool with water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

FIRE AND EXPLOSION HAZARDS:  Vapor explosion hazard indoors, outdoors, or in sewers. Vapors may travel to ignition source and flashback. Vapors will spread along the ground and collect in low or confined areas. Run-off to sewer may create a fire hazard. Heated containers may rupture or be thrown into the air. "Empty" containers may retain residue and can be dangerous. Product is not sensitive to mechanical impact or static discharge.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal.

There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see SECTION 15: REGULATORY INFORMATION.
SECTION 7: HANDLING AND STORAGE

HANDLING: Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes. Do not smoke while using this product.

SHIPPING AND STORING: Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous. See SECTION 14: TRANSPORTATION INFORMATION for Packing Group information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Where explosive mixtures may be present, equipment safe for such locations should be used.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: Use NIOSH-certified P- or R-series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

EYE PROTECTION: Where eye contact is likely, wear chemical goggles; contact lens use is not recommended.
**SKIN PROTECTION:** Where skin contact is likely, wear nitrile, supported neoprene, Viton, polyvinyl alcohol (PVA), laminate (Ansell Edmont Barrier®, North Silver Shield®, Safety 4 4h®) or equivalent protective gloves; use of natural rubber (latex), polyvinyl chloride (PVC) or equivalent gloves is not recommended.

To avoid prolonged or repeated contact with product where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

**PERSONAL HYGIENE:** Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, and/or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with this product.

**OTHER PROTECTIVE EQUIPMENT:** Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL STATE, APPEARANCE, AND ODOR:** Liquid, clear and green, mild hydrocarbon odor.

**ODOR THRESHOLD:** 30 ppm (based on Stoddard Solvent)

**MOLECULAR WEIGHT:** Not available.

**SPECIFIC GRAVITY:** 0.77 to 0.80 at 60ºF (15.6ºC) (water = 1)

**DENSITY:** 6.4 to 6.7 LB/US gal (770 to 800 g/l)

**VAPOR DENSITY:** 5 (air = 1) (approximately)

**VAPOR PRESSURE:** 0.4 mm Hg at 68ºF (20ºC) (approximately)
1.0 mm Hg at 100ºF (37ºC) (approximately)

**BOILING POINT:** 310ºF (155ºC) (initial)

**FREEZING/MELTING POINT:** -45ºF (-43ºC) (maximum)

**pH:** Not applicable.

**EVAPORATION RATE:** 0.1 (butyl acetate = 1) (based on Stoddard Solvent)
SOLUBILITY IN WATER: Insoluble.
FLASH POINT: 105°F (40°C) Tag Closed Cup
FLAMMABLE LIMITS IN AIR: LOWER: 0.7 VOL% (minimum)  
UPPER: 5 VOL% (maximum)
AUTOIGNITION TEMPERATURE: 410°F (210°C) (minimum)

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.
INCOMPATIBILITY: Avoid acids, alkalies, oxidizing agents, reducing agents, reactive metals or reactive halogens.
REACTIVITY: Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.
HAZARDOUS DECOMPOSITION PRODUCTS: None under normal temperatures and pressures. See also SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.

SECTION 11: TOXICOLOGICAL INFORMATION

SENSITIZATION: Based on best current information, there is no known human sensitization associated with this product.
MUTAGENICITY: Tetrachloroethylene has demonstrated human effects of mutagenicity.

Based on best current information, the other component listed in SECTION 2 is not a mutagen.
CARCINOGENICITY: Tetrachloroethylene is categorized by IARC as probably carcinogenic to humans (Group 2A). Tetrachloroethylene is listed by NTP as having sufficient evidence of carcinogenicity in experimental animals, but is not known or reasonably anticipated to be a human carcinogen according to NTP. Tetrachloroethylene is categorized by ACGIH as a confirmed animal carcinogen with unknown relevance to humans (A3).

Also see SECTION 3: CANCER INFORMATION and SECTION 15: CALIFORNIA.

REPRODUCTIVE TOXICITY: Based on best current information, there is no known reproductive toxicity associated with this product.

Also see SECTION 15: CALIFORNIA.

TERATOGENICITY: Tetrachloroethylene has demonstrated animal effects of teratogenicity.

Based on best current information, the other component listed in SECTION 2 is not a teratogen.

TOXICOLOGICALLY SYNERGISTIC PRODUCT(S): Based on best current information, there are no known toxicologically synergistic products associated with this product.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: 2.9 mg/L 96 hour LC$_{50}$ Rainbow trout, Donaldson trout (Oncorhynchus mykiss) (based on Petroleum distillates, hydrotreated light).

Component Analysis - Ecotoxicity - Aquatic Toxicity

Perchloroethylene (127-18-4)

<table>
<thead>
<tr>
<th>Test &amp; Species</th>
<th>Conditions</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 Hr LC50 rainbow trout</td>
<td>5.28 mg/L</td>
<td>Static</td>
</tr>
<tr>
<td>96 Hr LC50 fathead minnow</td>
<td>13.4 mg/L</td>
<td>flow-through</td>
</tr>
<tr>
<td>96 Hr LC50 bluegill</td>
<td>12.9 mg/L</td>
<td>Static</td>
</tr>
</tbody>
</table>

OCTANOL/WATER PARTITION COEFFICIENT: Not available.

VOLATILE ORGANIC COMPOUNDS: 100 WT%; 6.4 to 6.7 LB/US gal; 770 to 800 g/l

As per 40 CFR Part 51.100(s).
SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL: Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

USEPA WASTE CODE(S): D001, D018, D039 and D040

Based on available data, this information applies to the product as supplied to the user. Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product.

SECTION 14: TRANSPORT INFORMATION

DOT: Bulk Packages (>119 Gallons):

- **Shipping Name:** Combustible liquid, n.o.s. (petroleum naphtha) **UN/NA #:** NA1993  **Hazard Class:** Combustible liquid  **Packing Group:** III  **Required Placards:** Class 3, NA1993

*See 49 CFR 173.150(f)(1-4)*

Non-bulk Packages (<120 Gallons) (shipments via vessel and aircraft must use bulk package shipping description):

- **Shipping Name:** Cleaning compounds (Petroleum naphtha) (Not US DOT regulated). **UN/NA #:** None  **Hazard Class:** None  **Packing Group:** None  **Required Label(s):** None

TDG: Large Means of Containment:

- **Shipping Name:** PETROLEUM DISTILLATES, N.O.S. (petroleum naphtha) **UN/NA #:** UN1268  **Hazard Class:** 3  **Packing Group:** III  **Required Placards:** Class 3, UN1268

*See TDGR 1.33*

Small Means of Containment (shipments via aircraft must use large means of containment shipping description):

- **Shipping Name:** CLEANING COMPOUNDS (petroleum naphtha) (Not TDG regulated). **UN/NA #:** None  **Hazard Class:** None  **Packing Group:** None  **Required Label(s):** None

EMERGENCY RESPONSE GUIDE NUMBER: 128

Reference *North American Emergency Response Guidebook*
USA REGULATIONS

SARA SECTIONS 302 AND 304: Based on the ingredients listed in SECTION 2, this product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA SECTIONS 311 AND 312: This product poses the following health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):
- Immediate (Acute) Health Hazard
- Delayed (Chronic) Health Hazard
- Fire Hazard

SARA SECTION 313: This product does contain a "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perchloroethylene</td>
<td>127-18-4</td>
</tr>
</tbody>
</table>

CERCLA: Based on the ingredients listed in SECTION 2, this product contains the following "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4 with the following reportable quantities (RQ):

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS</th>
<th>RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perchloroethylene</td>
<td>127-18-4</td>
<td>100 lb (45.4 kg)</td>
</tr>
</tbody>
</table>

TSCA: All the components of this product are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

CALIFORNIA: This product may contain a detectable amount of benzene CAS 71-43-2, p-dichlorobenzene CAS 106-46-7, methylene chloride CAS 75-09-2, perchloroethylene CAS 127-18-4 and trichloroethylene CAS 79-01-6. WARNING: These chemicals are known to the State of California to cause cancer.
This product may contain a detectable amount of benzene CAS 71-43-2 and toluene CAS 108-88-3. WARNING: These chemicals are known to the State of California to cause birth defects or other reproductive harm.

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

WHMIS:  
Class B3 - Combustible Liquid  
Class D2B - Irritating to eyes and skin.  
Class D2A - Contains component that may cause cancer.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):  
All the components of this product are listed on, or are automatically included as "substance occurring in nature" on, or are exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).

SECTION 16. OTHER INFORMATION

REVISION INFORMATION:  
This MSDS has been revised in the following sections:  
Section 15: Corrected CAS for Perc.

LABEL/OTHER INFORMATION:  
This product is United States Department of Agriculture (USDA) approved, ETL classified and Factory Mutual (FM) approved.

User assumes all risks incident to the use of this (these) product(s). To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the product(s) as supplied to the user.

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