



Material Safety Data Sheet

Material Name: Safety-Kleen Professional Heavy Duty Cleaner Degreaser Concentrate

ID: 82991

*** Section 1 - Chemical Product and Company Identification ***

Product Code: 819, 820, 821, 822

Product Use: Cleaner and Degreaser

Synonyms: Not available

Safety-Kleen Systems, Inc.
5360 Legacy Drive
Building 2, Suite 100
Plano, TX 75024

Phone: 1-800-669-5740

Emergency # 1-800-468-1760
www.safety-kleen.com

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September 1, 2005

PREPARED BY: Product MSDS Coordinator APPROVED BY: MSDS Task Force

*** Section 2 - Hazardous Identification ***

EMERGENCY OVERVIEW

Appearance

Yellow liquid.

Signal Word

CAUTION!

Physical Hazards

Minimal fire hazard.

Health Hazards

May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin. May be harmful if swallowed.

POTENTIAL HEALTH EFFECTS

Inhalation (Breathing)

High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects.

Eyes

May cause irritation.

Skin

May cause irritation. A component may be absorbed through the skin and cause harm as noted under **INHALATION (BREATHING)**.

Ingestion (Swallowing)

May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and central nervous system effects as noted under **INHALATION (BREATHING)**.

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 (BREATHING)**. Prolonged or repeated exposure may cause central nervous system and kidney damage. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis).

Cancer Information

No known carcinogenicity. For more information, see **SECTION 11: CARCINOGENICITY**.

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Also see SECTION 15: CALIFORNIA.

Environmental Hazards

Product is not expected to be toxic to aquatic life. Also see SECTION 12: ECOLOGICAL INFORMATION.

*** Section 3 - Composition / Information on Ingredients ***

| CAS | Component | Percent |
|------------|---|---------|
| 7732-18-5 | Water | 75-100 |
| 68439-57-6 | Sodium alkyl olefin sulfonate | 1-4 |
| 34590-94-8 | Dipropylene glycol monomethyl ether | 1-5 |
| 34398-01-1 | Poly(oxy-1,2-ethanediyl), α -undecyl- ω -hydroxy- | 1-3 |
| 1569-01-3 | 2-Propanol, 1-propoxy- | 1-3 |
| 6834-92-0 | Silicic acid, disodium salt | 1-2 |

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

***PRODUCT DILUTION FOR USE ranges are as follows:

LIGHT: 1 to 50 with water.

MEDIUM: 1 to 20 with water.

HEAVY: 1 to 4 with water.

Actual wt% of product constituents will vary according to dilution.

*** Section 4 - First Aid Measures ***

Inhalation (Breathing)

Remove to fresh air. 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 if irritation develops or persists.

Skin

Immediately flush skin with plenty of water while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Seek medical attention if irritation develops or persists.

Ingestion (Swallowing)

If the material is swallowed, get immediate medical attention or advice. Do not induce vomiting. Call 1-800-468-1760 for additional information.

Notes 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 ***

Hazardous Combustion Products

Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds.

Conditions of Flammability

Product may burn, but does not ignite readily.

Extinguishing Media

Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, or water fog.

Protective Equipment For Firefighting

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Fire Fighting Equipment/Instructions

Keep storage containers cool with water spray.

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NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Fire and Explosion Hazards

Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Products are 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. Sorb with compatible sorbent material and shovel with a clean tool into a sealable container for disposal.

Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal.

*** Section 7 - Handling and Storage ***

Handling Procedures

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools. 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 when using this product.

Prior to use, this product must be diluted. Dilution strength should be according to product cleaning application and local VOC restrictions. Please consult the table below when mixing.

| MIX RATIO | g/L VOC | VOC CONCENTRATION (WT%) |
|---|---------|-------------------------|
| LIGHT: 1 part concentrate:50 parts water | 1.5 | 0.15 |
| MEDIUM: 1 part concentrate:20 parts water | 0.36 | 0.36 |
| HEAVY: 1 part concentrate:4 parts water | 15.4 | 1.5 |

Shipping and Storing

Keep container tightly closed when not in use and during transport. Store containers in a cool, dry, well-ventilated place. 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. Store between 40-90°F (4°C-32°C). Prevent product from freezing.

*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines

Component Exposure Limits

Dipropylene glycol monomethyl ether (34590-94-8)

ACGIH: 100 ppm TWA
150 ppm STEL
Skin - potential significant contribution to overall exposure by the cutaneous route

OSHA Final: 100 ppm TWA; 600 mg/m³ TWA
prevent or reduce skin absorption

OSHA Vacated: 100 ppm TWA; 600 mg/m³ TWA
150 ppm STEL; 900 mg/m³ STEL
Prevent or reduce skin absorption

NIOSH: 100 ppm TWA; 600 mg/m³ TWA
150 ppm STEL; 900 mg/m³ STEL
Potential for dermal absorption

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.

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Personal Protective Equipment: Respiratory

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.

Personal Protective Equipment: Eyes/Face

Wear chemical goggles; contact lens use is not recommended.

Personal Protective Equipment: Skin

Wear chemical resistant protective gloves; use of natural rubber or equivalent gloves is not recommended. Where spills are likely, wear appropriate chemical-resistant apron, coveralls, long sleeve shirts, or other protective clothing.

Personal Protective Equipment: 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 Personal Protective Equipment

Where spills and splashes are likely, facilities storing or using these products should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance/Odor : Yellow liquid, sassafras odor

pH: 12.7 in undiluted form;
12.3 at 1:4 Dilution;
11.5 at 1:20 dilution;
11.1 At 1:50 dilution

Boiling Point: >200°F (93°C)

Solubility (H2O): Complete

Density: 8.52 to 8.62 LB/US gal (1020 to 1034 g/L)

Evaporation Rate: 1 (butyl acetate = 1)

Odor Threshold: Not available

LFL: Not Available

UFL: Not Available

Vapor Pressure: Not available

Freezing Point: Not available

Melting Point: Not available

Specific Gravity: 1.029(water = 1)

Octanol/H2O Coeff.: Not available

Molecular Weight: Not available

Auto Ignition: Not Available

Flash Point: >200°F (93.3°C)

Viscosity: Not available

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Stability

Stable under normal temperatures and pressures.

Incompatibility

Do not mix with strong acids or bowl cleaners.

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.**

Conditions To Avoid

Avoid excessive heat and ignition sources.

* * * Section 11 - Toxicological Information * * *

Toxicity Data

Component Analysis - LD50/LC50

Water (7732-18-5)

Oral LD50 Rat >90 mL/kg

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Sodium alkyl olefin sulfonate (68439-57-6)

Oral LD50 Rat 2310 mg/kg; Dermal LD50 Rabbit 6300 mg/kg

Dipropylene glycol monomethyl ether (34590-94-8)

Oral LD50 Rat 5230 mg/kg; Dermal LD50 Rabbit 9500 mg/kg

2-Propanol, 1-propoxy- (1569-01-3)

Oral LD50 Rat 2504 mg/kg; Dermal LD50 Rabbit 3550 mg/kg

Silicic acid, disodium salt (6834-92-0)

Oral LD50 Rat 600 mg/kg

Acute Effects

May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin. May be harmful if swallowed.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Sensitization

Based on best current information, there is no known human sensitization associated with this product.

Mutagenicity

Based on best current information, there is no known mutagenicity associated with this product.

Reproductive Toxicity

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

Teratogenicity

Based on best current information, there is no known teratogenicity associated with this product.

Toxicologically Synergistic Products

Based on best current information, there are no known toxicologically synergistic products associated with this product.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

Product will rapidly neutralize in the environment. This material is not expected to be harmful to aquatic life.

Component Analysis - Ecotoxicity - Aquatic Toxicity

Sodium alkyl olefin sulfonate (68439-57-6)

Duration/Test/Species

96 Hr LC50 Brachydanio rerio

96 Hr LC50 Brachydanio rerio

Concentration/Conditions

1.0-10.0 mg/L [static]

12.2 mg/L [semi-static]

Notes

Dipropylene glycol monomethyl ether (34590-94-8)

Duration/Test/Species

96 Hr LC50 Pimephales promelas

Concentration/Conditions

>10000 mg/L [static]

Notes

Silicic acid, disodium salt (6834-92-0)

Duration/Test/Species

96 Hr LC50 Brachydanio rerio

96 Hr LC50 Brachydanio rerio

Concentration/Conditions

210 mg/L [semi-static]

210 mg/L

Notes

Persistence/Degradability

No information available for the product.

Mobility in Environmental Media

No information available for the product.

Other Adverse Effects

No additional information available.

* * * Section 13 - Disposal Considerations * * *

Disposal Instructions

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.

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US EPA Waste Number & Descriptions

D002 for undiluted product. For waste disposal purposes, diluted products with a pH between 2.1 and 12.4 is not defined or designated as hazardous by current provisions of the Federal (EPA) Resource Conservation and Recovery Act (RCRA, 40CFR261). 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 - Transportation Information * * *

Emergency Response Guide Number

Not applicable

DOT Shipping Name: Not regulated as a hazardous material.

TDG Shipping Name: Not regulated as a dangerous good.

IATA Information

No Classification Assigned.

IMDG Information

No Classification Assigned.

* * * Section 15 - Regulatory Information * * *

VOC (As Regulated)

7.7% or less, depending on use dilution.

As per 40 CFR Part 51.100(s)

See Section 7, Handling and Storage, for VOC of diluted product.

SARA Sections 311/312

This product poses the following health hazards as defined in 40 CFR Part 370 and are 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

SARA 302/304

Component Analysis

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 Section 313

This product does not contain "toxic" chemicals 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.

Component Analysis

This product does not contain any "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.

CERCLA

Component Analysis

This product does not contain any "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

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.

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Component Analysis

| Component | CAS # | TSCA |
|---|------------|------|
| Water | 7732-18-5 | Yes |
| Sodium alkyl olefin sulfonate | 68439-57-6 | Yes |
| Dipropylene glycol monomethyl ether | 34590-94-8 | Yes |
| Poly(oxy-1,2-ethanediyl), α -undecyl- ω -hydroxy- | 34398-01-1 | Yes |
| 2-Propanol, 1-propoxy- | 1569-01-3 | Yes |
| Silicic acid, disodium salt | 6834-92-0 | Yes |

State Regulations

This product does not contain detectable amounts of any chemical known to the State of California to cause birth defects or other reproductive harm.

This product does not contain detectable amounts of any chemical known to the State of California to cause cancer.

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

| Component | CAS | MA | MN | NJ | PA | CA |
|-------------------------------------|------------|-----|-----|-----|-----|-----|
| Dipropylene glycol monomethyl ether | 34590-94-8 | Yes | Yes | Yes | Yes | Yes |

No component(s) are listed under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).

Canadian Regulations

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

Component Analysis

| Component | CAS # | CAN |
|---|------------|-----|
| Water | 7732-18-5 | DSL |
| Sodium alkyl olefin sulfonate | 68439-57-6 | DSL |
| Dipropylene glycol monomethyl ether | 34590-94-8 | DSL |
| Poly(oxy-1,2-ethanediyl), α -undecyl- ω -hydroxy- | 34398-01-1 | DSL |
| 2-Propanol, 1-propoxy- | 1569-01-3 | DSL |
| Silicic acid, disodium salt | 6834-92-0 | DSL |

Canadian WHMIS Information

Class D2B - Irritating.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Dipropylene glycol monomethyl ether (34590-94-8) 1 %

Silicic acid, disodium salt (6834-92-0) 1 %

Canadian Environmental Protection Act (CEPA)

All the components of these products 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 * * *

Label/Other Information

No additional information available.

Revision Information

Updated in Sections 1 (dates), 2 (Composition, Toxicity and Exposure values), 3 (Emergency Overview, Health Effects), 4 (first Aid), 5 (NFPA Ratings), 7 (Handling), 8 (Personal Protective Equipment), 9 (Physical Properties), 12 (Volatile Organic Compounds), 13 (Waste Codes), 14 (Transportation Classification), 16 (Revision Information).

Disclaimer

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.

End of Sheet 82991