

SAFETY-KLEEN/ DENTON MINERAL SPIRITS
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA



SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SAFETY-KLEEN/DENTON MINERAL SPIRITS

SYNONYMS: Petroleum Distillates; Mineral Spirits.

PRODUCT CODE: 1021662

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.

This number is for emergency use only. If you desire non-emergency product information, please call a phone number listed below.

**24-HOUR EMERGENCY PHONE NUMBER
MEDICAL AND TRANSPORTATION (SPILL):**

1-800-468-1760

SUPPLIER: Safety-Kleen Systems, Inc.
5360 Legacy Drive
Building 2, Suite 100
Plano, Texas 75024
USA
1-800-669-5740
www.Safety-Kleen.com

TECHNICAL INFORMATION: 1-800-669-5740 Press 1 then 1, then Extension 7500

MSDS FORM NUMBER: 820084

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PREPARED BY: Product MSDS Coordinator

APPROVED BY: MSDS Task Force

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SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE

Clear liquid 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.

OSHA Regulated Chemicals

Tetrachloroethylene (127-18-4)

Carcinogen

POTENTIAL HEALTH EFFECTS

INHALATION (BREATHING): High concentrations of vapor may be harmful if inhaled. 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. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death.

EYES: May cause irritation.

SKIN: May cause irritation. Not likely to be absorbed in harmful amounts.

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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 (BREATHING)**. 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 3: COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Component	Synonyms	Percent
64742-47-8	Distillates (petroleum), hydrotreated light	Not Available	99-100
127-18-4	Tetrachloroethylene	Perchloroethylene; Tetrachloroethene	0-0.2

SECTION 4: FIRST AID MEASURES

INHALATION (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. Wash contaminated clothing before reuse. Consider discarding contaminated shoes.

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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

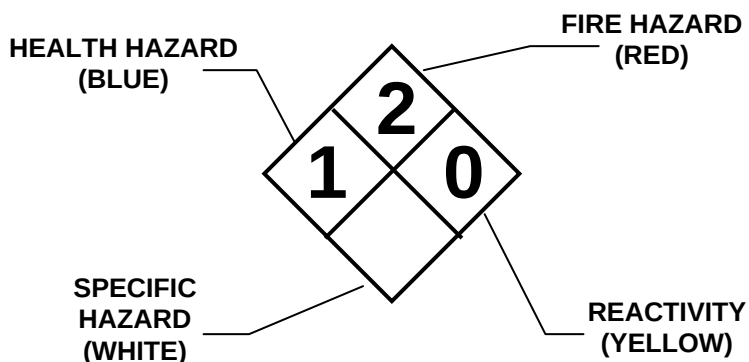
HAZARDOUS COMBUSTION PRODUCTS: Decomposition and combustion materials may be toxic. Burning may produce carbon monoxide and unidentified organic compounds.

CONDITIONS OF FLAMMABILITY: Heat, sparks, or flame.

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

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.

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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.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Component Exposure Limits

Distillates (petroleum), hydrotreated light (64742-47-8)

ACGIH: 100 ppm TWA (related to Stoddard solvent)
OSHA: 100 ppm TWA; 525 mg/m³ TWA (related to Stoddard solvent)
NIOSH: 350 mg/m³ TWA (related to Stoddard solvent)
1800 mg/m³ Ceiling (15 min) (related to Stoddard solvent)

Tetrachloroethylene (127-18-4)

ACGIH: 25 ppm TWA
100 ppm STEL
OSHA: 25 ppm TWA; 170 mg/m³ TWA

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 chemical impervious 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.

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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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
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PHYSICAL STATE, APPEARANCE, AND ODOR:	Clear liquid mild hydrocarbon odor.
ODOR THRESHOLD:	30 ppm (based on Stoddard Solvent)
MOLECULAR WEIGHT:	Not available.
SPECIFIC GRAVITY:	0.77 to 0.80 at 60°F (15.6°C) (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 68°F (20°C) (approximately) 1.0 mm Hg at 100°F (37°C) (approximately)
BOILING POINT:	310°F (155°C) (initial)
FREEZING/MELTING POINT:	-45°F (-43°C) (initial)
pH:	Not applicable.
EVAPORATION RATE:	0.1 (butyl acetate = 1) (based on Stoddard Solvent)
SOLUBILITY IN WATER:	Insoluble.
FLASH POINT:	142°F (61°C) Tag Closed Cup
FLAMMABLE LIMITS IN AIR:	LOWER: 0.7 VOL% (minimum) UPPER: 5 VOL% (maximum)
AUTOIGNITION TEMPERATURE:	410°F (210°C) (minimum)

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% VOLATILE: 100 WT%; 6.4 to 6.7 LB/US gal; 770 to 800 g/l
As per 40 CFR Part 51.100(s).
Photochemically Reactive (<10%)
VOC Vapor Pressure Approx 0.4 mmHg @20°C

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under normal temperatures and pressures.

CONDITIONS TO AVOID: 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

TOXICITY DATA:

Component Analysis - LD50/LC50

Distillates (petroleum), hydrotreated light (64742-47-8)

Inhalation LC50 Rat: >5.2 mg/L/4H

Oral LD50 Rat:>5000 mg/kg

Dermal LD50 Rabbit:>2000 mg/kg

Tetrachloroethylene (127-18-4)

Inhalation LC50 Rat: 4000 ppm/4H

Oral LD50 Rat:2629 mg/kg

Dermal LD50 Mouse:2800 mg/kg

ACUTE EFFECTS: May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin. High concentrations of vapor may be harmful if inhaled. 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. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death. May be harmful if swallowed. May cause throat irritation, nausea,

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vomiting, and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

REPEATED DOSE EFFECTS: Based on best current information, there is no known reproductive toxicity associated with this product.
Also see **SECTION 15: CALIFORNIA**.

Tetrachloroethylene has demonstrated animal effects of teratogenicity.
Based on best current information, the other component listed in **SECTION 2** is not a teratogen.

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

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**.

TARGET ORGAN EFFECTS: Prolonged or repeated exposure may cause central nervous system and kidney damage.

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SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: 2.9 mg/L 96 hour LC₅₀ Rainbow trout, Donaldson trout (*Oncorhynchus mykiss*) (based on Petroleum distillates, hydrotreated light).

Component Analysis - Ecotoxicity - Aquatic Toxicity

Distillates (petroleum), hydrotreated light (64742-47-8)

Test & Species

96 Hr LC50 Pimephales promelas	45 mg/L
96 Hr LC50 Lepomis macrochirus	1740 mg/L

Conditions

flow-through
static

Tetrachloroethylene (127-18-4)

Test & Species

96 Hr LC50 <i>Oncorhynchus mykiss</i>	5.28 mg/L
96 Hr LC50 Pimephales promelas	13.4 mg/L
96 Hr LC50 Lepomis macrochirus	12.9 mg/L
96 Hr LC50 <i>Oncorhynchus mykiss</i>	4.99 mg/L
96 Hr EC50 <i>Selenastrum capricornutum</i>	>816 mg/L

Conditions

12 °C
flow-through
static
flow-through

PERSISTENCE/DEGRADABILITY: No information available for the product.

BIOACCUMULATION/ACCUMULATION: No information available for the product.

MOBILITY IN ENVIRONMENTAL MEDIA: No information available for the product.

OTHER ADVERSE EFFECTS: Product is toxic to fish. Also see **SECTION 12: ECOLOGICAL INFORMATION.**

OCTANOL/WATER PARTITION COEFFICIENT: Not available.

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): D018, D039, 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.

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SECTION 14: TRANSPORT INFORMATION

DOT:	NON-BULK PACKAGES (<119 Gallons) (Non-USEPA Hazardous Waste Only; By Highway Only):
*49 CFR 173.150(f)(1,2)	*Proper Shipping Name: Cleaning compounds, liquid – NOT-USDOT Regulated Material Hazard Class: N/A UN/NA#: N/A Packing Group: N/A Required Labels: NONE
	BULK PACKAGES (>119 Gallons)(By Highway or Rail Only):
**49 CFR 173.150(f)(1)	**Proper Shipping Name: Combustible liquids, N.O.S. (PETROLEUM DISTILLATES) Hazard Class: Combustible UN/NA: NA1993 Packing Group: III Required PLACARD(S): COMBUSTIBLE, NA 1993
TDG:	SMALL MEANS OF CONTAINMENT (<119 Gallons)(By Highway, Rail, or Vessel within Canada)
*See TDGR 1.33	*Proper Shipping Name: Cleaning compounds, liquid – NON-TDG Regulated Material Hazard Class: NONE UN/NA#: NONE Packing Group: NONE Required Label(s): NONE
	LARGE MEANS OF CONTAINMENT (>119 Gallons)(Or <119 Gallons – by Air):
	Proper Shipping Name: Petroleum Distillates, n.o.s. Hazard Class: 3 UN/NA#: UN 1268 Packing Group: III Required PLACARD(S): FLAMMABLE LIQUID

EMERGENCY RESPONSE 128
GUIDE NUMBER: Reference *North American Emergency Response Guidebook*

SECTION 15: REGULATORY INFORMATION

USA REGULATIONS

OSHA	OSHA Regulated Chemicals Tetrachloroethylene (127-18-4) Present (Select Carcinogen)
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.

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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.

Component	CAS
Tetrachloroethylene	127-18-4

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):

Component	CAS	RQ
Tetrachloroethylene	127-18-4	100 LBS (45.4 kg)

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, ethylbenzene (CAS 100-41-4), naphthalene (CAS 91-20-3), 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.

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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.

**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: Section 13, DISPOSAL INFORMATION correction.

LABEL/OTHER INFORMATION: Not available.

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.