



Safety Data Sheet

Material Name: SAFETY-KLEEN METHYLENE CHLORIDE

SDS ID: 82334

*** Section 1 - Identification ***

Product Identifier

SAFETY-KLEEN METHYLENE CHLORIDE

Product Code

1021712, 1024712

Synonyms

Dichloromethane.

Recommended Use

Cleaning agent. If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

Restrictions on Use

- This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.
- Tetrachloroethylene (127-18-4): After December 8, 2026 this chemical substance (as defined in TSCA section 3(2))/product cannot be distributed in commerce to retailers for any use. After March 8, 2027, this chemical substance (as defined in TSCA section 3(2))/product is and can only be distributed in commerce or processed with a concentration of PCE equal to or greater than 0.1% by weight for the following purposes: (1) Processing as a reactant/intermediate; (2) Processing into formulation, mixture or reaction product; (3) Processing by repackaging; (4) Recycling; (5) Industrial and commercial use as solvent in open-top batch vapor degreasing; (6) Industrial and commercial use as solvent in closed-loop batch vapor degreasing; (7) Industrial and commercial use in maskant for chemical milling; (8) Industrial and commercial use as a processing aid in catalyst regeneration in petrochemical manufacturing; (9) Industrial and commercial use as a processing aid in sectors other than petrochemical manufacturing; (10) Industrial and commercial use as solvent for cold cleaning of tanker vessels; (11) Industrial and commercial use as energized electrical cleaner; (12) Industrial and commercial use in laboratory chemicals; (13) Industrial and commercial use in solvent-based adhesives and sealants; (14) Industrial and commercial use in dry cleaning in 3rd generation machines until December 20, 2027; (15) Industrial and commercial use in all dry cleaning and related spot cleaning until December 19, 2034; (16) Export; and (17) Disposal.
- Trichloroethylene (79-01-6): After June 16, 2025, this chemical/product is and can only be domestically manufactured, imported, processed, or distributed in commerce for the following purposes until the following prohibitions take effect: (1) Processing as an intermediate a) for the manufacture of HFC-134a until June 18, 2033, and b) for all other processing as a reactant/intermediate until December 18, 2026; (2) Industrial and commercial use as a solvent for open-top batch vapor degreasing until December 18, 2025; (3) Industrial and commercial use as a solvent for closed-loop batch vapor degreasing until December 18, 2025, except for industrial and commercial use in batch vapor degreasing for land-based DoD defense systems by Federal agencies and their contractors until December 18, 2029, and except for industrial and commercial use as a solvent for closed-loop batch vapor degreasing necessary for rocket engine cleaning by Federal agencies and their contractors until December 18, 2031, and except for industrial and commercial use of TCE in closed-loop and open-top batch vapor degreasing for essential aerospace parts and components and narrow tubing used in medical devices until December 18, 2031, and except for industrial and commercial use as a solvent for closed-loop batch vapor degreasing for rayon fabric scouring for end use in rocket booster nozzle production by Federal agencies and their contractors until December 18, 2034; (4) Industrial and commercial use in processing aid (a) for lithium battery separator manufacturing until December 18, 2029, and (b) for lead-acid battery separator manufacturing until December 18, 2044, and (c) for specialty polymeric microporous sheet material manufacturing until December 18, 2039, and (d) in process solvent used in battery manufacture; in process solvent used in polymer fiber spinning, fluoroelastomer manufacture and Alcantara manufacture; in extraction solvent used in caprolactam manufacture; and in precipitant used in beta-cyclodextrin manufacture until December 18, 2026; (5) Industrial and commercial uses for vessels of the Armed Forces and their systems, and in the maintenance, fabrication, and sustainment for and of such vessels and systems until December 18, 2034; and (6) Industrial and commercial use for laboratory use (a) for essential laboratory activities until December 18, 2074 and (b) for asphalt testing and recovery using manual centrifuge processes until December 18, 2029 and for asphalt testing and recovery until December 18, 2034.

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Manufacturer Information

Safety-Kleen Systems, Inc.
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Norwell, MA 02061-9149

Phone: 1-800-669-5740
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Emergency # 1-800-468-1760

Issue Date

February 18, 2025

Supersedes Issue Date

January 27, 2025

Original Issue Date

November 7, 1985

* * * Section 2 - Hazard(s) Identification * * *

Classification in Accordance with 29 CFR 1910.1200.

Skin Corrosion / Irritation, Category 2
Serious Eye Damage/Eye Irritation, Category 2A
Germ Cell Mutagenicity, Category 1B
Carcinogenicity, Category 1B
Toxic to Reproduction, Category 2
Specific Target Organ Toxicity - Single Exposure, Category 3 (respiratory tract)
Specific Target Organ Toxicity - Repeated Exposure, Category 1 (lungs, liver, kidneys, heart, blood, and central nervous system)

GHS LABEL ELEMENTS

Symbol(s)



Signal Word

DANGER!

Hazard Statement(s)

Causes skin irritation.
Causes serious eye irritation
May cause genetic defects.
May cause cancer.
Suspected of damaging fertility or the unborn child.
May cause respiratory irritation
Causes damage to lungs, liver, kidneys, heart, blood, and central nervous system through prolonged or repeated exposure.

Precautionary Statement(s)

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapor or mist. Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling.

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Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose in accordance with all applicable regulations.

Hazard(s) Not Otherwise Classified

None known.

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

CAS	Component	Percent
75-09-2	Methylene chloride	95-100
106-88-7	1,2-Butylene oxide	0.1-0.2
127-18-4	Tetrachloroethylene	0-1
79-01-6	Trichloroethene	0-1
75-56-9	Propylene oxide	0-1
71-55-6	1,1,1-Trichloroethane	0-1

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

Description of Necessary Measures

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Remove contaminated clothing and wash before reuse.

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

IF SWALLOWED: 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.

Most Important Symptoms/Effects

Acute

Respiratory tract irritation, skin irritation, eye irritation

Delayed

Mutagenic effects, cancer, reproductive effects, lung damage, liver damage, kidney damage, heart damage, blood damage, central nervous system damage

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Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

Treat symptomatically and supportively. Increased sensitivity of the heart to Adrenaline (epinephrine) may be caused by overexposure to product. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

*** Section 5 - Fire-Fighting Measures ***

Suitable Extinguishing Media

Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, or water fog. Water or foam may cause frothing.

Unsuitable Extinguishing Media

Do not use high-pressure water streams.

Specific Hazards Arising from the Chemical

Product may burn, but does not ignite readily.

Hazardous Combustion Products

Product may decompose upon heating to produce phosgene, halogenated compounds, carbon monoxide, and unidentified organic compounds.

Special Protective Equipment and Precautions for Firefighters

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

Fire Fighting Measures

Move container from fire area if it can be done without risk. Keep storage containers cool with water spray. 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 ***

Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

Methods and Materials for Containment and Clean Up

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. 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 tool into a sealable container for disposal. Do not allow product to enter sewer or waterways. 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 regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **Section 15**.

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

Precautions for Safe Handling

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. Do not allow contact with eyes, skin, clothing, and shoes. Do not smoke when using this product.

Conditions for Safe Storage, Including Any Incompatibilities

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.

Incompatibilities

Avoid acids, alkalis, oxidizing agents, plastics, and reactive metals.

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

Methylene chloride	75-09-2
ACGIH:	50 ppm TWA
NIOSH:	2300 ppm IDLH
OSHA (US):	25 ppm TWA; 125 ppm STEL (See 29 CFR 1910.1052) 15 min ; 12.5 ppm Action Level (See 29 CFR 1910.1052) ; 25 ppm TWA (See 29 CFR 1910.1052) 125 ppm STEL (see 29 CFR 1910.1052)
Mexico:	50 ppm TWA [VLE-PPT]
Tetrachloroethylene	127-18-4
ACGIH:	25 ppm TWA; 100 ppm STEL
NIOSH:	150 ppm IDLH
OSHA (US):	100 ppm TWA; 200 ppm Ceiling
1,1,1-Trichloroethane	71-55-6
ACGIH:	350 ppm TWA; 450 ppm STEL
NIOSH:	350 ppm Ceiling 15 min ; 1900 mg/m3 Ceiling 15 min; 700 ppm IDLH
OSHA (US):	350 ppm TWA ; 1900 mg/m3 TWA
Propylene oxide	75-56-9
ACGIH:	2 ppm TWA
NIOSH:	400 ppm IDLH
OSHA (US):	100 ppm TWA ; 240 mg/m3 TWA
Trichloroethene	79-01-6
ACGIH:	10 ppm TWA; 25 ppm STEL
NIOSH:	SK: SYS-DIR(IRR)-SEN (Aug 2017) ; 1000 ppm IDLH
OSHA (US):	100 ppm TWA; 200 ppm Ceiling

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

Methylene chloride (75-09-2)

0.3 mg/l Medium: urine Time: end of shift Parameter: Dichloromethane (semi-quantitative)

Tetrachloroethylene (127-18-4)

3 ppm Medium: end-exhaled air Time: prior to shift Parameter: Tetrachloroethylene ; 0.5 mg/l Medium: blood Time: prior to shift Parameter: Tetrachloroethylene

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1,1,1-Trichloroethane (71-55-6)

40 ppm Medium: end-exhaled air Time: prior to last shift of workweek Parameter: Methyl chloroform ; 10 mg/l Medium: urine Time: end of workweek Parameter: Trichloroacetic acid (nonspecific, semi-quantitative) ; 30 mg/l Medium: urine Time: end of shift at end of workweek Parameter: Total trichloroethanol (nonspecific, semi-quantitative) ; 1 mg/l Medium: blood Time: end of shift at end of workweek Parameter: Total trichloroethanol (nonspecific)

Trichloroethene (79-01-6)

15 mg/l Medium: urine Time: end of shift at end of workweek Parameter: Trichloroacetic acid (nonspecific) ; 0.5 mg/l Medium: blood Time: end of shift at end of workweek Parameter: Trichloroethanol without hydrolysis (nonspecific) ; Medium: blood Time: end of shift at end of workweek Parameter: Trichloroethylene (semi-quantitative) ; Medium: end-exhaled air Time: end of shift at end of workweek Parameter: Trichloroethylene (semi-quantitative)

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.

Individual Protective Measures, such as Personal Protective Equipment

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: Safety glasses, Gloves, and Lab coat or apron.

Eyes/Face Protection

Safety glasses with side shields should be worn at a minimum. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

Skin Protection

Where skin contact is likely, wear chemical impervious gloves; use of neoprene, nitrile, natural rubber (latex) or equivalent gloves is not recommended. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

Respiratory Protection

Use NIOSH-certified, air-supplied respirators (self-contained breathing apparatus or air-line) respiratory protective equipment when concentration of vapor or mist exceeds applicable exposure limits. 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.

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

Appearance/Odor :	Clear, colorless liquid, sweet odor	pH:	Not applicable.
Boiling Point:	104°F (40°C)	Odor Threshold:	25 ppm
Solubility (H2O):	Slight.	Melting Point:	-139°F (-95°C)
Density:	11.1 LB/US gal (1330 g/l)	Specific Gravity:	1.33 (water =1)
Evaporation Rate:	27.5 (butyl acetate = 1)	Octanol/H2O Coeff.:	Log Pow = 1.25
LFL:	13 VOL%	Auto Ignition Temperature:	1033°F (556°C)
UFL:	23 VOL%	Flash Point:	Not applicable
Vapor Pressure:	400 mm Hg at 75°F (24°C)	Viscosity:	Not available.

*** Section 10 - Stability & Reactivity ***

Reactivity

No reactivity hazard is expected.

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Chemical Stability

Stable under normal temperatures and pressures.

Possibility of Hazardous Reactions

Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.

Conditions To Avoid

Avoid heat, sparks, or flame.

Incompatible Materials

Avoid acids, alkalis, oxidizing agents, plastics, and reactive metals.

Hazardous Decomposition Products

None under normal temperatures and pressures. See also **Section 5**.

* * * **Section 11 - Toxicological Information** * * *

Information on Likely Routes of Exposure

Inhalation

Irritation, irregular heartbeat, lung damage, liver damage, kidney damage, heart damage, blood damage, central nervous system damage, nausea, vomiting, headache, dizziness, loss of coordination, numbness.

Skin Contact

Skin irritation, redness, drying. Not likely to be absorbed in harmful amounts.

Eye Contact

Eye irritation, redness, tearing, blurred vision.

Ingestion

Irritation, nausea, vomiting, central nervous system damage, headache, liver damage, kidney damage

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Methylene chloride (75-09-2)

Oral LD50 Rat 1600 mg/kg; Inhalation LC50 Rat 53 mg/L 6 h

1,2-Butylene oxide (106-88-7)

Oral LD50 Rat 900 mg/kg; Dermal LD50 Rabbit 1255 - 2546 mg/kg; Inhalation LC50 Rat >6300 mg/m³ 4 h

Tetrachloroethylene (127-18-4)

Oral LD50 Rat 2629 mg/kg; Inhalation LC50 Rat 27.8 mg/L 4 h

1,1,1-Trichloroethane (71-55-6)

Oral LD50 Rat 9600 mg/kg; Dermal LD50 Rabbit >15800 mg/kg; Inhalation LC50 Rat 18000 ppm 4 h

Propylene oxide (75-56-9)

Oral LD50 Rat 520 mg/kg; Dermal LD50 Rabbit 1244 mg/kg; Inhalation LC50 Rat 9.48 mg/L 4 h

Trichloroethene (79-01-6)

Oral LD50 Rat 4920 mg/kg; Dermal LD50 Rabbit 29000 mg/kg; Inhalation LC50 Rat 26 mg/L 4 h

Product Toxicity Data

Acute Toxicity Estimate

No data available.

Immediate Effects

High concentrations of vapor or mist may be harmful or fatal 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 irregular heartbeat, lung, liver, and kidney damage, nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects. Massive acute overexposure may cause suffocation (hypoxia), blood damage, rapid central nervous system depression, sudden collapse, coma, and/or death. May cause, eye irritation or pain with redness, tearing, and/or blurred vision. May cause, skin irritation, redness, burns and/ or drying. This product is not likely to be absorbed through the skin in harmful amounts. May be harmful or fatal if swallowed. May cause, throat irritation, pharyngeal fluid buildup (edema), gastrointestinal ulceration, hemorrhage, reduction of blood oxygen-carrying capacity, nausea, vomiting, central nervous

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system effects as noted under inhalation. Large doses may cause liver and kidney damage. Aspiration hazard: breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

Delayed Effects

Prolonged or repeated inhalation may cause toxic effects as noted under Acute inhalation. 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) and/or burns. Prolonged contact with this product may cause allergic skin sensitization reactions. Contains material which may cause skin, liver, kidney, heart, blood and central nervous system damage. Trichloroethylene has demonstrated human effects of skin sensitization. 1,1,1-Trichloroethane has demonstrated human effects of cardiac sensitization. Contains material which may cause birth defects. Methylene chloride, 1,1,1-trichloroethane, perchloroethylene, trichloroethylene, and 1,2-propylene oxide have demonstrated human effects of mutagenicity. Butylene oxide has demonstrated animal effects of mutagenicity. Methylene chloride, 1,1,1-trichloroethane, perchloroethylene, trichloroethylene, and 1,2-propylene oxide have demonstrated experimental effects of reproductive toxicity. Methylene chloride, 1,1,1-trichloroethane, perchloroethylene, trichloroethylene, and 1,2-propylene oxide have demonstrated experimental effects of reproductive toxicity.

Irritation/Corrosivity Data

Respiratory tract irritation, skin irritation, eye irritation.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

Methylene chloride	75-09-2
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 110 [2017] ; Monograph 71 [1999] (Group 2A (probably carcinogenic to humans))
NTP:	Reasonably Anticipated To Be A Human Carcinogen
DFG:	Category 5 (low carcinogenic potency)
OSHA:	Present
OSHA:	see 29 CFR 1910.1052
NIOSH:	potential occupational carcinogen
1,2-Butylene oxide	106-88-7
IARC:	Monograph 71 [1999] ; Monograph 47 [1989] (overall evaluation upgraded from 3 to 2B with supporting evidence from other relevant data) (Group 2B (possibly carcinogenic to humans))
DFG:	Category 2 (considered to be carcinogenic for man)
OSHA:	Present
Tetrachloroethylene	127-18-4
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

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IARC:	Monograph 106 [2014] ; Monograph 63 [1995] ; Supplement 7 [1987] (Group 2A (probably carcinogenic to humans))
NTP:	Reasonably Anticipated To Be A Human Carcinogen
DFG:	Category 3B (could be carcinogenic for man)
OSHA:	Present
NIOSH:	potential occupational carcinogen
1,1,1-Trichloroethane	71-55-6
ACGIH:	A4 - Not Classifiable as a Human Carcinogen
IARC:	Monograph 71 [1999] ; Supplement 7 [1987] ; Monograph 20 [1979] (Group 3 (not classifiable))
Propylene oxide	75-56-9
ACGIH:	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC:	Monograph 60 [1994] ; Supplement 7 [1987] (Group 2B (possibly carcinogenic to humans))
NTP:	Reasonably Anticipated To Be A Human Carcinogen
DFG:	Category 4 (no significant contribution to human cancer)
OSHA:	Present
NIOSH:	potential occupational carcinogen
Trichloroethene	79-01-6
ACGIH:	A2 - Suspected Human Carcinogen
IARC:	Monograph 106 [2014] ; Monograph 63 [1995] (Group 1 (carcinogenic to humans))
NTP:	Known Human Carcinogen
NTP:	Reasonably Anticipated To Be A Human Carcinogen
DFG:	Category 1 (causes cancer in man)
OSHA:	Present
NIOSH:	potential occupational carcinogen

Germ Cell Mutagenicity

Methylene chloride, 1,1,1-trichloroethane, perchloroethylene, trichloroethylene, and 1,2-propylene oxide have demonstrated human effects of mutagenicity. Butylene oxide has demonstrated animal effects of mutagenicity.

Tumorigenic Data

No data available

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Reproductive Toxicity

Available data characterizes components of this product as reproductive hazards. Methylene chloride, 1,1,1-trichloroethane, perchloroethylene, trichloroethylene, 1,2-propylene oxide, and butylene oxide have demonstrated animal effects of teratogenicity.

Specific Target Organ Toxicity - Single Exposure

Respiratory tract

Specific Target Organ Toxicity - Repeated Exposure

Lungs, liver, kidneys, heart, blood, central nervous system

Aspiration hazard

No data available.

Medical Conditions Aggravated by Exposure

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

Additional Data

No additional information is available.

***** Section 12 - Ecological Information *****

Ecotoxicity

Component Analysis - Ecotoxicity - Aquatic Toxicity

Methylene chloride	75-09-2
Fish:	LC50 96 h Pimephales promelas 140.8 - 277.8 mg/L [flow-through] ; LC50 96 h Pimephales promelas 262 - 855 mg/L [static] ; LC50 96 h Lepomis macrochirus 193 mg/L [static] ; LC50 96 h Lepomis macrochirus 193 mg/L [flow-through]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >500 mg/L EPA ; EC50 72 h Pseudokirchneriella subcapitata >500 mg/L EPA
Invertebrate:	EC50 48 h Daphnia magna 1532 - 1847 mg/L [Static] EPA ; EC50 48 h Daphnia magna 190 mg/L IUCLID
1,2-Butylene oxide	106-88-7
Algae:	EC50 72 h Desmodesmus subspicatus >500 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 69.8 mg/L IUCLID
Tetrachloroethylene	127-18-4
Fish:	LC50 96 h Pimephales promelas 12.4 - 14.4 mg/L [flow-through] ; LC50 96 h Pimephales promelas 8.6 - 13.5 mg/L [static] ; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static] ; LC50 96 h Oncorhynchus mykiss 4.73 - 5.27 mg/L [flow-through]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >500 mg/L EPA
Invertebrate:	EC50 48 h Daphnia magna 6.1 - 9 mg/L [Static] EPA
1,1,1-Trichloroethane	71-55-6

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Fish:	LC50 96 h Pimephales promelas 35.2 - 50.7 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 57 - 90 mg/L [static] (juvenile); LC50 96 h Cyprinus carpio 56 mg/L [flow-through]; LC50 96 h Poecilia reticulata 52.9 mg/L [flow-through]; LC50 96 h Poecilia reticulata 69.7 mg/L [static]; LC50 96 h Pimephales promelas 91 - 126 mg/L [static]; LC50 96 h Oncorhynchus mykiss 46 - 59 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata >500 mg/L EPA
Invertebrate:	LC50 48 h Daphnia magna >530 mg/L IUCLID ; EC50 48 h Daphnia magna 2384 mg/L IUCLID ; EC50 48 h Daphnia magna 9.7 - 12.8 mg/L [Static] EPA
Propylene oxide	75-56-9
Fish:	LC50 96 h Lepomis macrochirus 215 mg/L [static]
Algae:	EC50 96 h Pseudokirchneriella subcapitata 240 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 350 mg/L IUCLID
Trichloroethene	79-01-6
Fish:	LC50 96 h Pimephales promelas 31.4 - 71.8 mg/L [flow-through]; LC50 96 h Lepomis macrochirus 39 - 54 mg/L [static]
Algae:	EC50 96 h Desmodesmus subspicatus 450 mg/L IUCLID ; EC50 96 h Pseudokirchneriella subcapitata 175 mg/L IUCLID
Invertebrate:	EC50 48 h Daphnia magna 2.2 mg/L IUCLID

Persistence and Degradability

No information available for the product.

Bioaccumulation Potential

No information available for the product.

Mobility in Soil

No information available for the product.

Other Adverse Effects

No additional information is available.

***** Section 13 - Disposal Considerations *****

Disposal Methods

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. U080, U228, U226, U210 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. If this product is used or spent prior to discard, the following waste code(s) may apply: F001 for degreasing and F002 for all other uses; D039.

***** Section 14 - Transport Information *****

US DOT Information:

Shipping Name: DICHLOROMETHANE

Hazard Class: 6.1

UN/NA #: UN1593

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Packing Group: III
Required Label(s): 6.1

IATA Information:

Shipping Name: DICHLOROMETHANE
Hazard Class: 6.1
UN#: UN1593
Packing Group: III
Required Label(s): 6.1

IMDG Information:

Shipping Name: DICHLOROMETHANE
Hazard Class: 6.1
UN#: UN1593
Packing Group: III
Required Label(s): 6.1

TDG Information:

Shipping Name: DICHLOROMETHANE
Hazard Class: 6.1
UN#: UN1593
Packing Group: III
Required Label(s): 6.1

International Bulk Chemical Code

This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Methylene chloride	75-09-2
IBC Code:	Category Y
1,2-Butylene oxide	106-88-7
IBC Code:	Category Y
Tetrachloroethylene	127-18-4
IBC Code:	Category Y
1,1,1-Trichloroethane	71-55-6
IBC Code:	Category Y
Propylene oxide	75-56-9
IBC Code:	Category Y
Trichloroethene	79-01-6
IBC Code:	Category Y

Further information

Emergency Response Guide Number: 160 Reference - North American Emergency Response Guidebook

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Material Name: SAFETY-KLEEN METHYLENE CHLORIDE

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*** Section 15 - Regulatory Information ***
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U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Methylene chloride	75-09-2
SARA 313:	0.1 % de minimis concentration
CERCLA:	1000 lb final RQ ; 454 kg final RQ
1,2-Butylene oxide	106-88-7
SARA 313:	0.1 % de minimis concentration
CERCLA:	100 lb final RQ ; 45.4 kg final RQ
Tetrachloroethylene	127-18-4
SARA 313:	0.1 % de minimis concentration
CERCLA:	100 lb final RQ ; 45.4 kg final RQ
1,1,1-Trichloroethane	71-55-6
SARA 313:	1 % de minimis concentration
CERCLA:	1000 lb final RQ ; 454 kg final RQ
Propylene oxide	75-56-9
SARA 302:	10000 lb TPQ
SARA 313:	0.1 % de minimis concentration
CERCLA:	100 lb final RQ ; 45.4 kg final RQ
SARA 304:	100 lb EPCRA RQ
Trichloroethene	79-01-6
SARA 313:	0.1 % de minimis concentration
CERCLA:	100 lb final RQ ; 45.4 kg final RQ
TSCA 12b:	Section 5 , 0.1 % de minimis concentration; Section 6 , 0.1 % de minimis concentration

Chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

CAS-No.	Name	Percent by Weight
75-09-2	Methylene chloride	95-100

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106-88-7	1,2-Butylene oxide	0.1-0.2
127-18-4	Tetrachloroethylene	0-1
75-56-9	Propylene oxide	0-1
79-01-6	Trichloroethene	0-1

This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories

Carcinogenicity; Reproductive Toxicity; Skin Corrosion/Irritation; Serious Eye Damage/Eye Irritation; Specific Target Organ Toxicity; Germ Cell Mutagenicity

U.S. State Regulations

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

Component	CAS	CA	MA	MN	NJ	PA
Methylene chloride	75-09-2	Yes	Yes	Yes	Yes	Yes
1,2-Butylene oxide	106-88-7	No	Yes	Yes	Yes	Yes
Tetrachloroethylene	127-18-4	Yes	Yes	Yes	Yes	Yes
1,1,1-Trichloroethane	71-55-6	Yes	Yes	Yes	Yes	Yes
Propylene oxide	75-56-9	Yes	Yes	Yes	Yes	Yes
Trichloroethene	79-01-6	Yes	Yes	Yes	Yes	Yes

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

Warning! This product can expose you to chemicals including Methylene chloride, Tetrachloroethylene, Propylene oxide, Trichloroethene, which are known to the State of California to cause cancer and Trichloroethene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Methylene chloride	75-09-2
Carc:	carcinogen , 4/1/1988
Tetrachloroethylene	127-18-4
Carc:	carcinogen , 4/1/1988
Propylene oxide	75-56-9
Carc:	carcinogen , 10/1/1988
Trichloroethene	79-01-6
Carc:	carcinogen , 4/1/1988
Repro/Dev. Tox	developmental toxicity , 1/31/2014
	male reproductive toxicity , 1/31/14

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TSCA (Toxic Substances Control Act) - Section 6 - Restricted Substances

Chemical name	CAS No	
Methylene chloride	75-09-2	This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.
Tetrachloroethylene	127-18-4	After December 8, 2026 this chemical substance (as defined in TSCA section 3(2))/product cannot be distributed in commerce to retailers for any use. After March 8, 2027, this chemical substance (as defined in TSCA section 3(2))/product is and can only be distributed in commerce or processed with a concentration of PCE equal to or greater than 0.1% by weight for the following purposes: (1) Processing as a reactant/intermediate; (2) Processing into formulation, mixture or reaction product; (3) Processing by repackaging; (4) Recycling; (5) Industrial and commercial use as solvent in open-top batch vapor degreasing; (6) Industrial and commercial use as solvent in closed-loop batch vapor degreasing; (7) Industrial and commercial use in maskant for chemical milling; (8) Industrial and commercial use as a processing aid in catalyst regeneration in petrochemical manufacturing; (9) Industrial and commercial use as a processing aid in sectors other than petrochemical manufacturing; (10) Industrial and commercial use as solvent for cold cleaning of tanker vessels; (11) Industrial and commercial use as energized electrical cleaner; (12) Industrial and commercial use in laboratory chemicals; (13) Industrial and commercial use in solvent-based adhesives and sealants; (14) Industrial and commercial use in dry cleaning in 3rd generation machines until December 20, 2027; (15) Industrial and commercial use in all dry cleaning and related spot cleaning until December 19, 2034; (16) Export; and (17) Disposal.
Trichloroethylene	79-01-6	After June 16, 2025, this chemical/product is and can only be domestically manufactured, imported, processed, or distributed in commerce for the following purposes until the following prohibitions take effect: (1) Processing as an intermediate a) for the manufacture of HFC-134a until June 18, 2033, and b) for all other processing as a reactant/intermediate until December 18, 2026; (2) Industrial and commercial use as a solvent for open-top batch vapor degreasing until December 18, 2025; (3) Industrial and commercial use as a solvent for closed-loop batch vapor degreasing until December 18, 2025, except for industrial and commercial use in batch vapor degreasing for land-based DoD defense systems by Federal agencies and their contractors until December 18, 2029, and except for industrial and commercial use as a solvent for closed-loop batch vapor degreasing necessary for rocket engine cleaning by Federal agencies and their contractors until December 18, 2031, and except for industrial and commercial use of TCE in closed-loop and open-top batch vapor degreasing for essential aerospace parts and components and narrow tubing used in medical devices until December 18, 2031, and except for industrial and commercial use as a solvent for closed-loop batch vapor degreasing for rayon fabric scouring for end use in rocket booster nozzle production by Federal agencies and their contractors until December 18, 2034; (4) Industrial and commercial use in processing aid (a) for lithium battery separator manufacturing until December 18, 2029, and (b) for lead-acid battery separator manufacturing until December 18, 2044, and (c) for specialty polymeric microporous sheet material manufacturing until December 18, 2039, and (d) in process solvent used in battery manufacture; in process solvent used in polymer fiber spinning, fluoroelastomer manufacture and Alcantara manufacture; in extraction solvent used in caprolactam manufacture; and in precipitant

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Chemical name	CAS No	
		used in beta-cyclodextrin manufacture until December 18, 2026; (5) Industrial and commercial uses for vessels of the Armed Forces and their systems, and in the maintenance, fabrication, and sustainment for and of such vessels and systems until December 18, 2034; and (6) Industrial and commercial use for laboratory use (a) for essential laboratory activities until December 18, 2074 and (b) for asphalt testing and recovery using manual centrifuge processes until December 18, 2029 and for asphalt testing and recovery until December 18, 2034.

Component Analysis - Inventory

Methylene chloride (75-09-2)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	Yes	Yes	Yes

1,2-Butylene oxide (106-88-7)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	No	Yes	Yes

Tetrachloroethylene (127-18-4)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
Yes			Yes	Yes	Yes	Yes	Yes	Yes

1,1,1-Trichloroethane (71-55-6)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA			MX	NZ	PH	TH-TECI	TW	VN (Draft)
No			Yes	Yes	Yes	No	Yes	Yes

Propylene oxide (75-56-9)

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US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA		MX	NZ	PH	TH-TECI	TW	VN (Draft)	
Yes		Yes	Yes	Yes	Yes	Yes	Yes	

Trichloroethene (79-01-6)

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No
KR - REACH CCA		MX	NZ	PH	TH-TECI	TW	VN (Draft)	
Yes		Yes	Yes	Yes	Yes	Yes	Yes	

*** Section 16 - Other Information ***

NFPA Ratings: Health: 2 Fire: 1 Reactivity: 0

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

Revision Information

Updated: 02/18/2025. Revised to incorporate the downstream notification requirements for TCE in §751.321. Revised to incorporate the downstream notification requirements for PCE in §751.613. Language entered in Sections 1 and 15.

Key/Legend

ACGIH - American Conference of Governmental Industrial Hygienists; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Disclaimer

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