

SAFETY DATA SHEET

Test Standard - DB-624 Capillary-Megabore

Section 1. Identification

1.1 Product identifier

Product name : Test Standard - DB-624 Capillary-Megabore
Part no. : 200-0113
Validation date : 4/22/2025

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Reagents and Standards for Analytical Chemistry Laboratory Use
1 ml vial

Uses advised against : **Methylene chloride**
75-09-2

After February 3, 2025, this chemical substance (as defined in TSCA section 3(2))/product cannot be distributed in commerce to retailers. After January 28, 2026, 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 methylene chloride equal to or greater than 0.1% by weight for the following purposes: (1) Processing as a reactant; (2) Processing for incorporation into a formulation, mixture, or reaction product; (3) Processing for repackaging; (4) Processing for recycling; (5) Industrial or commercial use as a laboratory chemical; (6) Industrial or commercial use as a bonding agent for solvent welding; (7) Industrial and commercial use as a paint and coating remover from safety critical, corrosion sensitive components of aircraft and spacecraft; (8) Industrial and commercial use as a processing aid; (9) Industrial and commercial use for plastic and rubber products manufacturing; (10) Industrial and commercial use as a solvent that becomes part of a formulation or mixture, where that formulation or mixture will be used inside a manufacturing process, and the solvent (methylene chloride) will be reclaimed; (11) Industrial and commercial use in the refinishing for wooden furniture, decorative pieces, and architectural fixtures of artistic, cultural or historic value until May 8, 2029; (12) Industrial and commercial use in adhesives and sealants in aircraft, space vehicle, and turbine applications for structural and safety critical non-structural applications until May 8, 2029; (13) Disposal; and (14) Export.

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.

Section 1. Identification

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
5301 Stevens Creek Blvd
Santa Clara, CA 95051, USA
800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

H315 SKIN IRRITATION - Category 2
H319 EYE IRRITATION - Category 2A
H350 CARCINOGENICITY - Category 1A
H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
H411 AQUATIC HAZARD (LONG-TERM) - Category 2

2.2 GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H350 - May cause cancer.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

: P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P273 - Avoid release to the environment.
P261 - Avoid breathing vapor.
P264 - Wash thoroughly after handling.

Response

: P391 - Collect spillage.
P308 + P313 - IF exposed or concerned: Get medical advice or attention.
P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
P302 + P352 - IF ON SKIN: Wash with plenty of water.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.

Storage

: P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3 Other hazards

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	Identifiers
Dichloromethane	≥90	CAS: 75-09-2
Tetrachloroethylene	<1	CAS: 127-18-4
Chlorobenzene	≤0.3	CAS: 108-90-7
1,2-Dichloropropane	≤0.3	CAS: 78-87-5
nonane	≤0.3	CAS: 111-84-2
Pyridine	≤0.3	CAS: 110-86-1
Octane	≤0.3	CAS: 111-65-9
Heptane	≤0.3	CAS: 142-82-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

4.1 Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.

Section 4. First aid measures

- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
carbonyl halides

5.3 Advice for firefighters

Section 5. Fire-fighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Remark** : When heated, flammable vapors will be evolved.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and materials for containment and cleaning up

- Methods for cleaning up** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

- : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 7. Handling and storage

7.3 Specific end use(s)

- Recommendations** : Industrial applications, Professional applications.
Industrial sector specific solutions : Not available.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Dichloromethane	<p>NIOSH REL (United States, 10/2020) NIA. OSHA PEL Z2 (United States, 2/2013) STEL 15 minutes: 125 ppm. TWA 8 hours: 25 ppm. CAL OSHA PEL (United States, 5/2018) STEL 15 minutes: 435 mg/m³. STEL 15 minutes: 125 ppm. TWA 8 hours: 87 mg/m³. TWA 8 hours: 25 ppm. OSHA PEL 1989 (United States, 3/1989) OCP. STEL 15 minutes: 125 ppm. TWA 8 hours: 25 ppm. ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 50 ppm. TWA 8 hours: 174 mg/m³.</p>
Tetrachloroethylene	<p>NIOSH REL (United States, 10/2020) NIA. OSHA PEL Z2 (United States, 2/2013) TWA 8 hours: 100 ppm. CEIL: 200 ppm. AMP 5 minutes: 300 ppm. CAL OSHA PEL (United States, 5/2018) STEL 15 minutes: 685 mg/m³. STEL 15 minutes: 100 ppm. C: 300 ppm. TWA 8 hours: 170 mg/m³. TWA 8 hours: 25 ppm. OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 25 ppm. TWA 8 hours: 170 mg/m³. ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 25 ppm. TWA 8 hours: 170 mg/m³. STEL 15 minutes: 100 ppm. STEL 15 minutes: 685 mg/m³.</p>
Chlorobenzene	<p>CAL OSHA PEL (United States, 5/2018) TWA 8 hours: 46 mg/m³. TWA 8 hours: 10 ppm. OSHA PEL (United States, 5/2018) TWA 8 hours: 75 ppm. TWA 8 hours: 350 mg/m³. OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 75 ppm. TWA 8 hours: 350 mg/m³. ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 10 ppm. TWA 8 hours: 46 mg/m³.</p>

Section 8. Exposure controls/personal protection

<p>1,2-Dichloropropane</p>	<p>NIOSH REL (United States, 10/2020) NIA. CAL OSHA PEL (United States, 5/2018) STEL 15 minutes: 510 mg/m³. STEL 15 minutes: 110 ppm. TWA 8 hours: 350 mg/m³. TWA 8 hours: 75 ppm. OSHA PEL (United States, 5/2018) TWA 8 hours: 75 ppm. TWA 8 hours: 350 mg/m³. OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 75 ppm. TWA 8 hours: 350 mg/m³. STEL 15 minutes: 110 ppm. STEL 15 minutes: 510 mg/m³. ACGIH TLV (United States, 1/2024) A4. Skin sensitizer. TWA 8 hours: 10 ppm.</p>
<p>nonane</p>	<p>NIOSH REL (United States, 10/2020) TWA 10 hours: 200 ppm. TWA 10 hours: 1050 mg/m³. CAL OSHA PEL (United States, 5/2018) TWA 8 hours: 1050 mg/m³. TWA 8 hours: 200 ppm. OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 200 ppm. TWA 8 hours: 1050 mg/m³. ACGIH TLV (United States, 1/2024) TWA 8 hours: 200 ppm. TWA 8 hours: 1050 mg/m³.</p>
<p>Pyridine</p>	<p>NIOSH REL (United States, 10/2020) TWA 10 hours: 5 ppm. TWA 10 hours: 15 mg/m³. CAL OSHA PEL (United States, 5/2018) TWA 8 hours: 15 mg/m³. TWA 8 hours: 5 ppm. OSHA PEL (United States, 5/2018) TWA 8 hours: 5 ppm. TWA 8 hours: 15 mg/m³. OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 5 ppm. TWA 8 hours: 15 mg/m³. ACGIH TLV (United States, 1/2024) A3. TWA 8 hours: 1 ppm.</p>
<p>Octane</p>	<p>NIOSH REL (United States, 10/2020) TWA 10 hours: 75 ppm. TWA 10 hours: 350 mg/m³. CEIL 15 minutes: 385 ppm. CEIL 15 minutes: 1800 mg/m³. CAL OSHA PEL (United States, 5/2018) STEL 15 minutes: 1800 mg/m³. STEL 15 minutes: 375 ppm. TWA 8 hours: 1450 mg/m³. TWA 8 hours: 300 ppm. OSHA PEL (United States, 5/2018) TWA 8 hours: 500 ppm. TWA 8 hours: 2350 mg/m³. OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 300 ppm.</p>

Section 8. Exposure controls/personal protection

<p>Heptane</p>	<p>TWA 8 hours: 1450 mg/m³. STEL 15 minutes: 375 ppm. STEL 15 minutes: 1800 mg/m³. ACGIH TLV (United States, 1/2024) [Octane] TWA 8 hours: 300 ppm. NIOSH REL (United States, 10/2020) TWA 10 hours: 85 ppm. TWA 10 hours: 350 mg/m³. CEIL 15 minutes: 440 ppm. CEIL 15 minutes: 1800 mg/m³. CAL OSHA PEL (United States, 5/2018) STEL 15 minutes: 2000 mg/m³. STEL 15 minutes: 500 ppm. TWA 8 hours: 1600 mg/m³. TWA 8 hours: 400 ppm. OSHA PEL (United States, 5/2018) TWA 8 hours: 500 ppm. TWA 8 hours: 2000 mg/m³. OSHA PEL 1989 (United States, 3/1989) TWA 8 hours: 400 ppm. TWA 8 hours: 1600 mg/m³. STEL 15 minutes: 500 ppm. STEL 15 minutes: 2000 mg/m³. ACGIH TLV (United States, 1/2024) [Heptane] TWA 8 hours: 400 ppm. TWA 8 hours: 1640 mg/m³. STEL 15 minutes: 500 ppm. STEL 15 minutes: 2050 mg/m³.</p>
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[Biological exposure indices](#)

Ingredient name	Exposure indices
<p>Dichloromethane</p>	<p>ACGIH BEI (United States, 1/2024) BEI: 0.3 mg/l [Semi-quantitative: The determinant is an indicator of exposure to the chemical, but the quantitative interpretation of the measurement is ambiguous. These determinants should be used as a screening test if a quantitative test is not practical or as a confirmatory test if the quantitative test is not specific and the origin of the determinant is in question.], dichloromethane [in urine]. Sampling time: end of shift.</p>
<p>Tetrachloroethylene</p>	<p>ACGIH BEI (United States, 1/2024) BEI: 3 ppm, tetrachloroethylene [in end-exhaled air]. Sampling time: prior to shift. BEI: 0.5 mg/l, tetrachloroethylene [in blood]. Sampling time: prior to shift.</p>
<p>Chlorobenzene</p>	<p>ACGIH BEI (United States, 1/2024) BEI: 100 mg/g creatinine, 4-chlorocatechol [in urine]. Sampling time: end of shift at end of workweek. BEI: 20 mg/g creatinine, p-chlorophenol [in urine]. Sampling time: end of shift at end of workweek.</p>

Section 8. Exposure controls/personal protection

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	: Liquid.
Color	: Clear. / Colorless.
Odor	: Irritating material
Odor threshold	: Not available.
pH	: Not available.
Melting point/freezing point	: -95.1°C (-139.2°F)
Boiling point or initial boiling point and boiling range	: 39.8°C (103.6°F)
Flash point	: Not available.

Section 9. Physical and chemical properties and safety characteristics

- Evaporation rate** : Not available.
Flammability : Not applicable.
Lower and upper explosion limit/flammability limit : Lower: 14%
Upper: 22%
Vapor pressure : 47.3 kPa (355 mm Hg)
Relative vapor density : 2.93 [Air = 1]
Relative density : Not available.

Solubility(ies) :

Media	Result
water	Partially soluble

- Miscible with water** : No.
Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature :

Ingredient name	°C	°F	Method
Dichloromethane	605	1121	-

- Decomposition temperature** : Not available.

- Viscosity** : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): Not available.

Particle characteristics

- Median particle size** : Not applicable.

Section 10. Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

- 10.2 Chemical stability** : The product is stable.

- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

- 10.4 Conditions to avoid** : No specific data.

- 10.5 Incompatible materials** : May react or be incompatible with oxidizing materials.

- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	
Dichloromethane	Rat - Inhalation - LC50 Vapor	76000 mg/m ³ [4 hours]
Tetrachloroethylene	Rat - Oral - LD50	2629 mg/kg
Chlorobenzene	Rabbit - Dermal - LD50	>7940 mg/kg
	Rat - Oral - LD50	500 mg/kg
1,2-Dichloropropane	Rat - Oral - LD50	1900 mg/kg
	Rabbit - Dermal - LD50	8750 mg/kg
	Rat - Inhalation - LC50 Vapor	2000 ppm [4 hours]
nonane	Rat - Male, Female - Oral - LD50	>5000 mg/kg
	Rat - Inhalation - LC50 Vapor	3200 ppm [4 hours]

Section 11. Toxicological information

Pyridine	Rat - Inhalation - LC50 Vapor	17000 mg/m ³ [4 hours]
	Rat - Oral - LD50	891 mg/kg
Octane	Rat - Inhalation - LC50 Vapor	9010 ppm [1 hours]
	Rat - Oral - LD50	>5000 mg/kg
	Rat - Inhalation - LC50 Vapor	118 g/m ³ [4 hours]
Heptane	Rat - Inhalation - LC50 Vapor	25260 ppm [4 hours]
	Rat - Inhalation - LC50 Vapor	103 g/m ³ [4 hours]
	Rat - Inhalation - LC50 Vapor	48000 ppm [4 hours]

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

Result

Dichloromethane	Rabbit - Skin - Moderate irritant	Duration of treatment/ exposure: 24 hours
Tetrachloroethylene	Rabbit - Skin - Mild irritant	Duration of treatment/ exposure: 24 hours
	Rabbit - Skin - Severe irritant	Duration of treatment/ exposure: 24 hours
1,2-Dichloropropane nonane	Rabbit - Skin - Mild irritant	-
	Rat - Skin - Moderate irritant	Duration of treatment/ exposure: 96 hours
Pyridine	Rabbit - Skin - Mild irritant	Duration of treatment/ exposure: 24 hours

Conclusion/Summary [Product] : Repeated exposure may cause skin dryness or cracking.

Ingredient name

Conclusion/Summary

nonane Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation

Dichloromethane	Rabbit - Eyes - Moderate irritant	-
Tetrachloroethylene	Rabbit - Eyes - Mild irritant	Duration of treatment/ exposure: 24 hours
	Rabbit - Eyes - Mild irritant	-
1,2-Dichloropropane	Rabbit - Eyes - Mild irritant	-

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Product/ingredient name

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Section 11. Toxicological information

Germ cell mutagenicity

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Dichloromethane	+	2A	Reasonably anticipated to be a human carcinogen.
Tetrachloroethylene	-	2A	Reasonably anticipated to be a human carcinogen.
1,2-Dichloropropane	-	1	-
Pyridine	-	2B	-

Reproductive toxicity

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Result

Dichloromethane	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Tetrachloroethylene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Chlorobenzene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1,2-Dichloropropane	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (kidneys, liver) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
nonane	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Pyridine	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Octane	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Heptane	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name

Result

Section 11. Toxicological information

Tetrachloroethylene	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys, liver, nervous system) - Category 2
Chlorobenzene	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys, liver) - Category 2
nonane	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS)) - Category 2

Aspiration hazard

Product/ingredient name	Result
Tetrachloroethylene	ASPIRATION HAZARD - Category 1
nonane	ASPIRATION HAZARD - Category 1
Octane	ASPIRATION HAZARD - Category 1
Heptane	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact	: Causes serious eye irritation.
Inhalation	: Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: Causes skin irritation.
Ingestion	: Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Long term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Potential chronic health effects

Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Dichloromethane	N/A	N/A	N/A	76	N/A
Tetrachloroethylene	2629	N/A	N/A	N/A	N/A
Chlorobenzene	500	N/A	N/A	11	N/A
1,2-Dichloropropane	1900	8750	N/A	19.8	N/A
nonane	N/A	N/A	N/A	17	N/A
Pyridine	891	1120	N/A	12.9	N/A
Octane	N/A	N/A	N/A	118	N/A
Heptane	N/A	N/A	N/A	103	N/A

Other information : Adverse symptoms may include the following: central nervous system depression , carboxyhemoglobinemia ,headache ,dizziness/vertigo ,drowsiness/fatigue, nausea or vomiting

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result
Dichloromethane	Acute - LC50 - Marine water
	Acute - EC50
	Acute - EC50 - Fresh water
	Chronic - NOEC - Fresh water
Tetrachloroethylene	108.5 mg/l [48 hours]
	242 mg/l [72 hours]
	99 mg/l [96 hours]
	56 mg/l [96 hours]
	500 µg/l [32 days]
	0.4 mg/l [21 days]
Chlorobenzene	Acute - LC50 - Fresh water
	3.40071 mg/l [48 hours]
	Acute - EC50
	3.64 mg/l [72 hours]
	Acute - LC50 - Fresh water
	4000 µg/l [96 hours]
1,2-Dichloropropane	Chronic - NOEC - Fresh water
	0.01 mg/l [72 hours]
	Acute - LC50 - Fresh water
	2370 µg/l [96 hours]
	Acute - LC50 - Fresh water
	7900 µg/l [48 hours]
Pyridine	Chronic - NOEC - Fresh water
	8500 µg/l [28 days]
	Acute - EC50 - Fresh water
	12.5 mg/l [96 hours]
	Acute - LC50 - Fresh water
	52 mg/l [48 hours]
Heptane	Chronic - NOEC
	6 to 11 mg/l [28 days]
	Chronic - NOEC
	8.3 mg/l [21 days]
	Acute - LC50 - Marine water
	7.3 ppm [96 hours]
Heptane	Acute - EC50
	12.6 mg/l [96 hours]
	Chronic - EC10
	5.55 mg/l [96 hours]
	Acute - LC50 - Fresh water
	26 mg/l [96 hours]
Heptane	Acute - EC50 - Fresh water
	110 mg/l [96 hours]
	Acute - LC50 - Fresh water
182 mg/l [48 hours]	
Acute - LC50 - Fresh water	
375 mg/l [96 hours]	

Section 12. Ecological information

Conclusion/Summary : Not available.

[Product]

Ingredient name

Dichloromethane

Conclusion/Summary

Harmful to aquatic organisms.

12.2 Persistence and degradability

Product/ingredient name

Result

Dichloromethane	OECD [Ready Biodegradability - Closed Bottle Test]	>70% [28 days] - Readily	Aerobic
Chlorobenzene	- OECD [Ready Biodegradability - Manometric Respirometry Test]	15% [28 days] 15% [28 days] - Not readily	Aerobic -
1,2-Dichloropropane	OECD [Ready Biodegradability - Closed Bottle Test]	11.7% [28 days] - Not readily	Aerobic

Conclusion/Summary : Not available.

[Product]

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Dichloromethane	-	-	Readily
Tetrachloroethylene	-	-	Not readily
Chlorobenzene	-	-	Not readily
1,2-Dichloropropane	-	-	Not readily
nonane	-	-	Readily
Pyridine	-	-	Readily
Octane	-	-	Readily
Heptane	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Dichloromethane	1.25	22.91	Low
Tetrachloroethylene	2.53	49	Low
Chlorobenzene	2.46	4.3 to 40	Low
1,2-Dichloropropane	1.99 to 2.28	1.2 to 3.2	Low
nonane	5.65	105	Low
Pyridine	0.64	-	Low
Octane	5.18	198.7	Low
Heptane	4.66	552	High

12.4 Mobility in soil

Soil/Water partition coefficient : Not available.

12.5 Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Methylene chloride	75-09-2	Listed	U080

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT / TDG / Mexico / IMDG / : Not regulated.

IATA

Additional information

Remarks: De minimis quantities

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal regulations : TSCA 4(a) final test rules: nonane

TSCA Section 3
Methylene chloride
75-09-2

After February 3, 2025, this chemical substance (as defined in TSCA section 3(2))/product cannot be distributed in commerce to retailers. After January 28, 2026, 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 methylene chloride equal to or greater than 0.1% by weight for the following purposes: (1) Processing as a reactant; (2) Processing for incorporation into a formulation, mixture, or reaction product;

Section 15. Regulatory information

(3) Processing for repackaging; (4) Processing for recycling; (5) Industrial or commercial use as a laboratory chemical; (6) Industrial or commercial use as a bonding agent for solvent welding; (7) Industrial and commercial use as a paint and coating remover from safety critical, corrosion sensitive components of aircraft and spacecraft; (8) Industrial and commercial use as a processing aid; (9) Industrial and commercial use for plastic and rubber products manufacturing; (10) Industrial and commercial use as a solvent that becomes part of a formulation or mixture, where that formulation or mixture will be used inside a manufacturing process, and the solvent (methylene chloride) will be reclaimed; (11) Industrial and commercial use in the refinishing for wooden furniture, decorative pieces, and architectural fixtures of artistic, cultural or historic value until May 8, 2029; (12) Industrial and commercial use in adhesives and sealants in aircraft, space vehicle, and turbine applications for structural and safety critical non-structural applications until May 8, 2029; (13) Disposal; and (14) Export.

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.

TSCA 6 proposed risk management: Tetrachloroethylene

TSCA 6 final risk management: Dichloromethane

Clean Water Act (CWA) 307: Dichloromethane; Tetrachloroethylene; Chlorobenzene; 1,2-Dichloropropane

Clean Water Act (CWA) 311: Chlorobenzene; 1,2-Dichloropropane

TSCA 12(b) - Chemical export notification

Name	One time notification		Annual notification		
	4	5	5(f)	6	7
methylene chloride	Not listed	Not listed	Not listed	Listed	Not listed
perchloroethylene	Not listed	Not listed	Not listed	Listed	Not listed
1,2-Dichloropropane	Listed	Not listed	Not listed	Not listed	Not listed

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

Section 15. Regulatory information

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Composition/information on ingredients

Name	%	Classification
Dichloromethane	≥90	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Tetrachloroethylene	<1	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2B CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Chlorobenzene	≤0.3	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1,2-Dichloropropane	≤0.3	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2B CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Pyridine	≤0.3	HNOC - Defatting irritant FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

SARA 313

Section 15. Regulatory information

	Product name	CAS number	%
Form R - Reporting requirements	Dichloromethane	75-09-2	≥90
	Tetrachloroethylene	127-18-4	<1
Supplier notification	Dichloromethane	75-09-2	≥90
	Tetrachloroethylene	127-18-4	<1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: METHYLENE CHLORIDE

New York : The following components are listed: Dichloromethane

New Jersey : The following components are listed: METHYLENE CHLORIDE; TETRACHLOROETHYLENE; METHYL ALCOHOL

Pennsylvania : The following components are listed: METHANE, DICHLORO-

California Prop. 65

⚠ WARNING: This product can expose you to chemicals including dichloromethane, tetrachloroethylene, 1,2-Dichloropropane and Pyridine, which are known to the State of California to cause cancer, and Methanol, 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.

Ingredient name	No significant risk level	Maximum acceptable dosage level
dichloromethane	Yes.	-
tetrachloroethylene	Yes.	-
1,2-Dichloropropane	Yes.	-
Pyridine	-	-
Methanol	-	Yes.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Japan : **Japan inventory (CSCL):** All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Section 15. Regulatory information

Taiwan	: All components are listed or exempted.
Thailand	: All components are listed or exempted.
Turkey	: Not determined.
United States	: All components are active or exempted.
Viet Nam	: All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 1A	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 2	Calculation method

History

Date of issue/Date of revision	: 04/22/2025
Date of previous issue	: 12/20/2024
Version	: 11

Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor DOT = Department of Transportation GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods IMO = International Maritime Organization LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) N/A = Not available SGG = Segregation Group TDG = Transportation of Dangerous Goods UN = United Nations
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📌 Indicates information that has changed from previously issued version.

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