

SAFETY DATA SHEET

VOC Mixture

Section 1. Identification

1.1 Product identifier

Product name : VOC Mixture
Part no. : 8500-5902
Validation date : 5/9/2025

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

Uses advised against : After June 16, 2025, this chemical substance (as defined in TSCA section 3(2)) may not be distributed in commerce or processed in greater than trace quantities for the following purposes: Incorporation into formulation, mixture or reaction products in petrochemical-derived manufacturing except in the manufacture of vinyl chloride; Industrial and commercial use as an industrial processing aid in the manufacture of petrochemicals-derived products except in the manufacture of vinyl chloride; Industrial and commercial use in the manufacture of other basic chemicals (including manufacturing of chlorinated compounds used in solvents, adhesives, asphalt, and paints and coatings), except for use in the elimination of nitrogen trichloride in the production of chlorine and caustic soda and the recovery of chlorine in tail gas from the production of chlorine; Industrial and commercial use in metal recovery; Industrial and commercial use as an additive; and beginning December 18, 2025, industrial and commercial specialty uses by the U.S. Department of Defense.

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

H225 FLAMMABLE LIQUIDS - Category 2
H301 ACUTE TOXICITY (oral) - Category 3
H311 ACUTE TOXICITY (dermal) - Category 3
H331 ACUTE TOXICITY (inhalation) - Category 3
H370 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
H412 AQUATIC HAZARD (LONG-TERM) - Category 3

2.2 GHS label elements

Hazard pictograms :



Section 2. Hazards identification

- Signal word** : Danger
- Hazard statements** : H225 - Highly flammable liquid and vapor.
H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled.
H370 - Causes damage to organs.
H412 - Harmful to aquatic life with long lasting effects.
- Precautionary statements**
- Prevention** : P280 - Wear protective gloves and protective clothing.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 - Use explosion-proof electrical, ventilating or lighting equipment.
P242 - Use non-sparking tools.
P243 - Take action to prevent static discharges.
P233 - Keep container tightly closed.
P273 - Avoid release to the environment.
P260 - Do not breathe vapor.
P270 - Do not eat, drink or smoke when using this product.
P264 - Wash thoroughly after handling.
- Response** : P308 + P311 - IF exposed: Call a POISON CENTER or doctor.
P304 + P340, P311 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P302 + P312, P352 - IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water.
P361 + P364 - Take off immediately all contaminated clothing and wash it before reuse.
- Storage** : P403 + P235 - Store in a well-ventilated place. Keep cool.
- 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
Methanol	≥90	CAS: 67-56-1
Hexachlorobuta-1,3-diene	<0.1	CAS: 87-68-3
Tetrachloroethylene	<0.1	CAS: 127-18-4
1,2-Dichlorobenzene	<0.1	CAS: 95-50-1

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. If necessary, call a poison center or physician.
- 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.
- Skin contact** : Wash with plenty of soap and 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. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. 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. 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** : No known significant effects or critical hazards.
- Inhalation** : Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
- Skin contact** : Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
- Ingestion** : Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- 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 dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Specific hazards arising from the chemical** : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is harmful 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
Formaldehyde.

5.3 Advice for firefighters

- 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- 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.

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe 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.

6.3 Methods and materials for containment and cleaning up

- Methods for cleaning up** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. 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 a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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.

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
Methanol	<p>NIOSH REL (United States, 10/2020) Absorbed through skin. TWA 10 hours: 200 ppm. TWA 10 hours: 260 mg/m³. STEL 15 minutes: 250 ppm. STEL 15 minutes: 325 mg/m³.</p> <p>CAL OSHA PEL (United States, 5/2018) Absorbed through skin. STEL 15 minutes: 325 mg/m³. STEL 15 minutes: 250 ppm. C: 1000 ppm. TWA 8 hours: 260 mg/m³. TWA 8 hours: 200 ppm.</p> <p>OSHA PEL (United States, 5/2018) TWA 8 hours: 200 ppm. TWA 8 hours: 260 mg/m³.</p> <p>OSHA PEL 1989 (United States, 3/1989) Absorbed through skin. TWA 8 hours: 200 ppm.</p>

Section 8. Exposure controls/personal protection

Hexachlorobuta-1,3-diene

TWA 8 hours: 260 mg/m³.
 STEL 15 minutes: 250 ppm.
 STEL 15 minutes: 325 mg/m³.
ACGIH TLV (United States, 1/2024)

Absorbed through skin.
 TWA 8 hours: 200 ppm.
 TWA 8 hours: 262 mg/m³.
 STEL 15 minutes: 250 ppm.
 STEL 15 minutes: 328 mg/m³.

NIOSH REL (United States, 10/2020) NIA.

Absorbed through skin.
 TWA 10 hours: 0.02 ppm.
 TWA 10 hours: 0.24 mg/m³.

CAL OSHA PEL (United States, 5/2018)

Absorbed through skin.
 TWA 8 hours: 0.24 mg/m³.
 TWA 8 hours: 0.02 ppm.

OSHA PEL 1989 (United States, 3/1989)

TWA 8 hours: 0.02 ppm.
 TWA 8 hours: 0.24 mg/m³.

ACGIH TLV (United States, 1/2024) A3.

Absorbed through skin.
 TWA 8 hours: 0.02 ppm.
 TWA 8 hours: 0.21 mg/m³.

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.

NIOSH REL (United States, 10/2020)

CEIL: 50 ppm.
 CEIL: 300 mg/m³.

CAL OSHA PEL (United States, 5/2018)

Absorbed through skin.
 C: 50 ppm.
 TWA 8 hours: 150 mg/m³.
 TWA 8 hours: 25 ppm.

OSHA PEL (United States, 5/2018)

CEIL: 50 ppm.
 CEIL: 300 mg/m³.

OSHA PEL 1989 (United States, 3/1989)

CEIL: 50 ppm.
 CEIL: 300 mg/m³.

ACGIH TLV (United States, 1/2024) A4.

Tetrachloroethylene

1,2-Dichlorobenzene

Section 8. Exposure controls/personal protection

TWA 8 hours: 25 ppm.
TWA 8 hours: 150 mg/m³.
STEL 15 minutes: 50 ppm.
STEL 15 minutes: 301 mg/m³.

Biological exposure indices

Ingredient name	Exposure indices
Methanol	ACGIH BEI (United States, 1/2024) BEI: 15 mg/l, methanol [in urine]. Sampling time: end of shift.
Tetrachloroethylene	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.

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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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: safety glasses with side-shields.

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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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.

Section 8. Exposure controls/personal protection

- 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. Volatile.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : -98°C (-144.4°F)
- Boiling point or initial boiling point and boiling range** : 65°C (149°F)
- Flash point** : Closed cup: 10 to 20°C (50 to 68°F)
- Evaporation rate** : 5 (butyl acetate = 1)
- Flammability** : Not applicable.
- Lower and upper explosion limit/flammability limit** : Lower: 6%
Upper: 35.5%
- Vapor pressure** : 13.3 kPa (100 mm Hg)
- Relative vapor density** : 1.11 [Air = 1]
- Relative density** : Not available.
- Solubility(ies)** :

Media	Result
water	Soluble

- Miscible with water** : Yes.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** :

Ingredient name	°C	°F	Method
<input checked="" type="checkbox"/> Methanol	455	851	DIN 51794

- 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.

Section 10. Stability and reactivity

- 10.4 Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
- 10.5 Incompatible materials** : Reactive or incompatible with the following materials:
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

Methanol	Rabbit - Dermal - LD50	15800 mg/kg
	Rat - Oral - LD50	5600 mg/kg
	Rat - Inhalation - LC50 Vapor	145000 ppm [1 hours]
	Rat - Inhalation - LC50 Vapor	64000 ppm [4 hours]
	Rat - Inhalation - LC50 Vapor	83.84 mg/l [4 hours]
	Rat - Inhalation - LC50 Vapor	189.95 mg/l [1 hours]
Hexachlorobuta-1,3-diene	Rat - Oral - LD50	82 mg/kg
	Rabbit - Dermal - LD50	100 mg/kg
	Rat - Dermal - LD50	4500 mg/kg
	Rat - Inhalation - LC50 Vapor	630 mg/m ³ [4 hours]
Tetrachloroethylene 1,2-Dichlorobenzene	Rat - Oral - LD50	2629 mg/kg
	Rabbit - Dermal - LD50	>10 g/kg
	Rat - Oral - LD50	500 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	8150 mg/m ³ [4 hours]

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

Result

Methanol	Rabbit - Skin - Moderate irritant	Duration of treatment/ exposure: 24 hours
Hexachlorobuta-1,3-diene	Rabbit - Skin - Mild irritant	Duration of treatment/ exposure: 24 hours
	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

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

Ingredient name

Conclusion/Summary

Methanol	Repeated exposure may cause skin dryness or cracking.
1,2-Dichlorobenzene	Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation

Result

Section 11. Toxicological information

Methanol	Rabbit - Eyes - Moderate irritant	Duration of treatment/ exposure: 24 hours
	Rabbit - Eyes - Moderate irritant	-
	Rabbit - Eyes - Severe irritant	-
Hexachlorobuta-1,3-diene	Rabbit - Eyes - Mild irritant	Duration of treatment/ exposure: 24 hours
		-
Tetrachloroethylene	Rabbit - Eyes - Mild irritant	Duration of treatment/ exposure: 24 hours
	Rabbit - Eyes - Mild irritant	-
1,2-Dichlorobenzene	Rabbit - Eyes - Mild irritant	Duration of treatment/ exposure: 0.5 minutes
	Rabbit - Eyes - Mild irritant	-

Conclusion/Summary [Product] : May cause eye irritation.

Ingredient name

Conclusion/Summary

Methanol

May cause eye irritation.

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.

Germ cell mutagenicity

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Methanol	-	3	-
Hexachlorobuta-1,3-diene	-	3	-
Tetrachloroethylene	-	2A	Reasonably anticipated to be a human carcinogen.
1,2-Dichlorobenzene	-	3	-

Reproductive toxicity

Conclusion/Summary [Product] : Repeated or prolonged exposure to the substance can produce reproductive system damage.

Ingredient name

Conclusion/Summary

Methanol

Repeated or prolonged exposure to the substance can produce reproductive system damage.

Section 11. Toxicological information

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
Methanol Hexachlorobuta-1,3-diene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Tetrachloroethylene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
1,2-Dichlorobenzene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
Hexachlorobuta-1,3-diene	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS), kidneys, liver) - Category 2
Tetrachloroethylene	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys, liver, nervous system) - Category 2

Aspiration hazard

Product/ingredient name	Result
Tetrachloroethylene	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	: No known significant effects or critical hazards.
Inhalation	: Toxic if inhaled. Causes damage to organs following a single exposure if inhaled.
Skin contact	: Toxic in contact with skin. Causes damage to organs following a single exposure in contact with skin.
Ingestion	: Toxic if swallowed. Causes damage to organs following a single exposure if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
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.

Section 11. Toxicological information

Potential chronic health effects

Conclusion/Summary : Not available.
[Product]

General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
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)
VOC Mixture	101.4	304.1	N/A	3.0	N/A
Methanol	100	300	N/A	3	N/A
Hexachlorobuta-1,3-diene	82	100	N/A	0.63	N/A
Tetrachloroethylene	2629	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene	500	N/A	N/A	11	8.15

Other information : Adverse symptoms may include the following: blurred or double vision, Eye contact can result in corneal damage or blindness. Repeated or prolonged exposure to the substance can produce liver damage. Narcotic effect. May cause nervous system disturbances.

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name

Result

Methanol	Acute - LC50 - Marine water	2500 mg/l [48 hours]
	Acute - LC50 - Fresh water	290 mg/l [96 hours]
Hexachlorobuta-1,3-diene	Chronic - NOEC - Marine water	9.96 mg/l [96 hours]
	Acute - EC50 - Marine water	2736 mg/l [96 hours]
Tetrachloroethylene	Acute - LC50 - Fresh water	90 µg/l [96 hours]
	Acute - LC50 - Marine water	0.87 mg/l [48 hours]
1,2-Dichlorobenzene	Chronic - NOEC - Fresh water	500 µg/l [32 days]
	Chronic - NOEC - Fresh water	0.4 mg/l [21 days]
	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]
	Chronic - NOEC - Fresh water	0.01 mg/l [72 hours]
1,2-Dichlorobenzene	Acute - EC50 - Fresh water	0.74 mg/l [48 hours]
	Acute - LC50 - Fresh water	1.4 mg/l [96 hours]
	Chronic - NOEC	5 mg/l [4 days]
	Acute - EC50 - Fresh water	2.2 mg/l [96 hours]
	Chronic - NOEC - Marine water	5 µg/l [21 days]

Conclusion/Summary : Not available.
[Product]

12.2 Persistence and degradability

Conclusion/Summary : Not available.
[Product]

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Methanol	-	-	Readily
Tetrachloroethylene	-	-	Not readily
1,2-Dichlorobenzene	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Methanol	-0.77	<10	Low
Hexachlorobuta-1,3-diene	4.78	6606.93	High
Tetrachloroethylene	2.53	49	Low
1,2-Dichlorobenzene	3.38	150 to 230	Low

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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. 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
Methanol (I)	67-56-1	Listed	U154

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 / IATA : 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 Section 3**

After June 16, 2025, this chemical substance (as defined in TSCA section 3(2)) may not be distributed in commerce or processed in greater than trace quantities for the following purposes: Incorporation into formulation, mixture or reaction products in petrochemical-derived manufacturing except in the manufacture of vinyl chloride; Industrial and commercial use as an industrial processing aid in the manufacture of petrochemicals-derived products except in the manufacture of vinyl chloride; Industrial and commercial use in the manufacture of other basic chemicals (including manufacturing of chlorinated compounds used in solvents, adhesives, asphalt, and paints and coatings), except for use in the elimination of nitrogen trichloride in the production of chlorine and caustic soda and the recovery of chlorine in tail gas from the production of chlorine; Industrial and commercial use in metal recovery; Industrial and commercial use as an additive; and beginning December 18, 2025, industrial and commercial specialty uses by the U.S. Department of Defense.

TSCA 5(a)2 final significant new use rules: Trichloroethylene

TSCA 6 proposed risk management: Trichloroethylene; Tetrachloroethylene; Carbon tetrachloride

TSCA 6 final risk management: Dichloromethane; Hexachlorobuta-1,3-diene

Clean Water Act (CWA) 307: Trichloroethylene; 1,1,2-Trichloroethane; 1,1,1-Trichloroethane; Dichloromethane; Hexachlorobuta-1,3-diene; ethylbenzene; 1-Propene, 1,3-dichloro-, (1E)-; (Z)-1,3-dichloropropene; 1,1-Dichloropropene; 2,2-Dichloropropane; 1,3-Dichloropropane; 1,2-Dichloropropane; trans-Dichloroethylene; cis-Dichloroethylene; 1,1-Dichloroethylene; 1,2-Dichloroethane; 1,1-Dichloroethane; 1,4-Dichlorobenzene; 1,3-Dichlorobenzene; 1,2,4-Trichlorobenzene; 1,2,3-Trichlorobenzene; Toluene; Tetrachloroethylene; 1,1,2,2-Tetrachloroethane; 1,1,1,2-Tetrachloroethane; naphthalene; 1,2-Dichlorobenzene; Dibromochloromethane; Trichloromethane; Chlorobenzene; Carbon tetrachloride; Bromoform; Bromodichloromethane; benzene

Clean Water Act (CWA) 311: p-Xylene; m-Xylene; o-xylene; Trichloroethylene; ethylbenzene; 1-Propene, 1,3-dichloro-, (1E)-; (Z)-1,3-dichloropropene; 1,1-Dichloropropene; 2,2-Dichloropropane; 1,3-Dichloropropane; 1,2-Dichloropropane; 1,1-Dichloroethylene; 1,2-Dichloroethane; 1,4-Dichlorobenzene; 1,3-Dichlorobenzene; Toluene; styrene; naphthalene; 1,2-Dichlorobenzene; 1,2-Dibromoethane; Trichloromethane; Chlorobenzene; Carbon tetrachloride; benzene

[TSCA 12\(b\) - Chemical export notification](#)

Not applicable.

Section 15. Regulatory information

Clean Air Act Section 112 : Listed

(b) Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Trichloromethane	<0.1	Yes.	10000	803.8	10	0.8

SARA 304 RQ : 40160.6 lbs / 18232.9 kg

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 2
 ACUTE TOXICITY (oral) - Category 3
 ACUTE TOXICITY (dermal) - Category 3
 ACUTE TOXICITY (inhalation) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1

Composition/information on ingredients

Name	%	Classification
Methanol	≥90	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1
Hexachlorobuta-1,3-diene	<0.1	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 2 ACUTE TOXICITY (inhalation) - Category 2 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2B SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Tetrachloroethylene	<0.1	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 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
1,2-Dichlorobenzene	<0.1	ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

SARA 313

Section 15. Regulatory information

	Product name	CAS number	%
Form R - Reporting requirements	Methanol	67-56-1	≥90
	1,2,3-Trichlorobenzene	87-61-6	<0.1
Supplier notification	Methanol	67-56-1	≥90
	1,2,3-Trichlorobenzene	87-61-6	<0.1

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: METHANOL
- New York** : The following components are listed: Methanol
- New Jersey** : The following components are listed: METHYL ALCOHOL
- Pennsylvania** : The following components are listed: METHANOL
- California Prop. 65**

⚠ WARNING: This product can expose you to chemicals including trichloroethylene, Ethylene dibromide, 1,2-Dibromo-3-chloropropane, Chloroform and Benzene, which are known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including 1,2,3-Trichloropropane, Vinyl trichloride, 1,1,1-trichloroethane, dichloromethane, cumene, Hexachlorobutadiene, Ethylbenzene, 1,2-Dichloropropane, Vinylidene chloride, Ethylene dichloride, 1,1-Dichloroethane, p-Dichlorobenzene, tetrachloroethylene, 1,1,2,2-Tetrachloroethane, 1,1,1,2-Tetrachloroethane, Styrene, Naphthalene, Carbon tetrachloride, bromoform and Bromodichloromethane, which are known to the State of California to cause cancer, and Methanol and Toluene, which are 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
Methanol	-	Yes.
1,2,3-Trichloropropane	-	-
trichloroethylene	Yes.	-
Vinyl trichloride	Yes.	-
1,1,1-trichloroethane	-	-
dichloromethane	Yes.	-
cumene	-	-
Hexachlorobutadiene	-	-
Ethylbenzene	Yes.	-
1,2-Dichloropropane	Yes.	-
Vinylidene chloride	Yes.	-
Ethylene dichloride	Yes.	-
1,1-Dichloroethane	Yes.	-
p-Dichlorobenzene	Yes.	-
Toluene	-	Yes.
tetrachloroethylene	Yes.	-
1,1,2,2-Tetrachloroethane	Yes.	-
1,1,1,2-Tetrachloroethane	-	-
Styrene	Yes.	-
Naphthalene	Yes.	-
Ethylene dibromide	Yes.	-
1,2-Dibromo-3-chloropropane	Yes.	Yes.
Chloroform	Yes.	-
Carbon tetrachloride	Yes.	-
bromoform	Yes.	-
Bromodichloromethane	Yes.	-
Benzene	Yes.	Yes.

International regulations

Section 15. Regulatory information

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	: Not determined.
Canada	: Not determined.
China	: Not determined.
Japan	: Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
ACUTE TOXICITY (oral) - Category 3	Calculation method
ACUTE TOXICITY (dermal) - Category 3	Calculation method
ACUTE TOXICITY (inhalation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 3	Expert judgment

History

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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

Section 16. Other information

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

✔ Indicates information that has changed from previously issued version.

[Notice to reader](#)

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