Conforms to US OSHA Hazard Communication 29CFR1910.1200

# SAFETY DATA SHEET

Agilent Technologies

Semi-Volatiles GC/MS Tuning Standard

## Section 1. Identification

### 1.1 Product identifier

**Product name** : Semi-Volatiles GC/MS Tuning Standard

**Part no.** : 8500-5995

**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 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.

### 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 |
| H351 | CARCINOGENICITY - Category 2 |
| H336 | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |
| H400 | AQUATIC HAZARD (ACUTE) - Category 1 |
| H410 | AQUATIC HAZARD (LONG-TERM) - Category 1 |

# Section 2. Hazards identification

## 2.2 GHS label elements

**Hazard pictograms** :

**Signal word** : Warning

**Hazard statements** :
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H351 - Suspected of causing cancer.
H410 - Very 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 |
| Benzidine | <0.1 | CAS: 92-87-5 |
| Pentachlorophenol | ≤0.1 | CAS: 87-86-5 |
| DDT | ≤0.1 | CAS: 50-29-3 |

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. 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.

**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.

# Section 4. First aid measures

**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.

**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 very 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

**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.

# 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.

## 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 | **NIOSH REL (United States, 10/2020)** NIA.<br>**OSHA PEL Z2 (United States, 2/2013)**<br>STEL 15 minutes: 125 ppm.<br>TWA 8 hours: 25 ppm.<br>**CAL OSHA PEL (United States, 5/2018)**<br>STEL 15 minutes: 435 mg/m³.<br>STEL 15 minutes: 125 ppm.<br>TWA 8 hours: 87 mg/m³.<br>TWA 8 hours: 25 ppm.<br>**OSHA PEL 1989 (United States, 3/1989)**<br>OCP.<br>STEL 15 minutes: 125 ppm.<br>TWA 8 hours: 25 ppm.<br>**ACGIH TLV (United States, 1/2024)** A3.<br>TWA 8 hours: 50 ppm.<br>TWA 8 hours: 174 mg/m³. |
| Benzidine | **NIOSH REL (United States, 10/2020)** NIA.<br>**CAL OSHA PEL (United States, 5/2018)**<br>Absorbed through skin.<br>**ACGIH TLV (United States, 1/2024)** A1.<br>Absorbed through skin. |

# Section 8. Exposure controls/personal protection

| | |
|---|---|
| Pentachlorophenol | **NIOSH REL (United States, 10/2020)**<br>Absorbed through skin.<br>TWA 10 hours: 0.5 mg/m³.<br>**CAL OSHA PEL (United States, 5/2018)**<br>Absorbed through skin.<br>TWA 8 hours: 0.5 mg/m³.<br>**OSHA PEL (United States, 5/2018)** Absorbed through skin.<br>TWA 8 hours: 0.5 mg/m³.<br>**OSHA PEL 1989 (United States, 3/1989)**<br>Absorbed through skin.<br>TWA 8 hours: 0.5 mg/m³.<br>**ACGIH TLV (United States, 1/2024)** A3.<br>Absorbed through skin.<br>TWA 8 hours: 0.5 mg/m³. Form: Inhalable fraction and vapor.<br>STEL 15 minutes: 1 mg/m³. Form: Inhalable fraction and vapor. |
| DDT | **NIOSH REL (United States, 10/2020)** NIA.<br>TWA 10 hours: 0.5 mg/m³.<br>**CAL OSHA PEL (United States, 5/2018)**<br>Absorbed through skin.<br>TWA 8 hours: 1 mg/m³.<br>**OSHA PEL (United States, 5/2018)** Absorbed through skin.<br>TWA 8 hours: 1 mg/m³.<br>**OSHA PEL 1989 (United States, 3/1989)**<br>Absorbed through skin.<br>TWA 8 hours: 1 mg/m³.<br>**ACGIH TLV (United States, 1/2024)** A3.<br>TWA 8 hours: 1 mg/m³. |

**Biological exposure indices**

| Ingredient name | Exposure indices |
|---|---|
| Dichloromethane | **ACGIH BEI (United States, 1/2024)**<br>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. |
| Pentachlorophenol | **ACGIH BEI (United States, 1/2024)**<br>BEI: Nonquantitative: Biological monitoring should be considered for this compound based on the review; however, a specific BEI® could not be determined due to insufficient data., pentachlorophenol [in urine]. Sampling time: prior to last shift of workweek. |

**8.2 Exposure controls**

## Section 8. Exposure controls/personal protection

**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. Volatile.

**Odor** : Chloroform.

**Odor threshold** : 307 ppm

**pH** : Not available.

**Melting point/freezing point** : -95°C (-139°F)

**Boiling point or initial boiling point and boiling range** : 39.75°C (103.6°F)

**Flash point** : Not available.

**Evaporation rate** : 1.47 (butyl acetate = 1)

**Flammability** : Not applicable.

## Section 9. Physical and chemical properties and safety characteristics

**Lower and upper explosion limit/flammability limit** : Lower: 15.5%
Upper: 66.4%

**Vapor pressure** : 53.3 kPa (400 mm Hg)

**Relative vapor density** : 2.9 [Air = 1]

**Relative density** : Not available.

**Solubility(ies)** :

| Media | Result |
|---|---|
| water | Partially soluble |

**Miscible with water** : No.

**Partition coefficient: n-octanol/water** : 5

**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.
Reactive or incompatible with the following materials: metals.

**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/m³ [4 hours] |
| Benzidine | Rat - Oral - LD50 | 309 mg/kg |
| Pentachlorophenol | Rat - Oral - LD50 | 27 mg/kg |
| | Rat - Dermal - LD50 | 26 mg/kg |
| DDT | Rat - Oral - LD50 | 87 mg/kg |
| | Rabbit - Dermal - LD50 | 300 mg/kg |
| | Rat - Dermal - LD50 | 250 mg/kg |

**Conclusion/Summary [Product]** : Not available.

# Section 11. Toxicological information

## Skin corrosion/irritation

| Product/ingredient name | Result | |
|---|---|---|
| Dichloromethane | Rabbit - Skin - Moderate irritant | Duration of treatment/ exposure: 24 hours |
| Pentachlorophenol | Rabbit - Skin - Mild irritant | Duration of treatment/ exposure: 24 hours |

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

## Serious eye damage/eye irritation

| | Result | |
|---|---|---|
| Dichloromethane | Rabbit - Eyes - Moderate irritant | - |
| Pentachlorophenol | Rabbit - Eyes - Mild irritant | Duration of treatment/ exposure: 24 hours |

**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.

## Germ cell mutagenicity

**Conclusion/Summary [Product]** : Not available.

## Carcinogenicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Classification

| Product/ingredient name | OSHA | IARC | NTP |
|---|---|---|---|
| Semi-Volatiles GC/MS Tuning Standard | - | 2B | Reasonably anticipated to be a human carcinogen. |
| Dichloromethane | + | 2A | Reasonably anticipated to be a human carcinogen. |
| Benzidine | + | 1 | Known to be a human carcinogen. |
| Pentachlorophenol | - | 1 | Reasonably anticipated to be a human carcinogen. |
| DDT | - | 2A | Reasonably anticipated to be a human carcinogen. |

## Reproductive toxicity

# Section 11. Toxicological information

**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 |
| Pentachlorophenol | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |

## Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Result |
|---|---|
| Pentachlorophenol | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS), immune system, kidneys, lungs, thyroid) - Category 2 |
| DDT | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS), endocrine) - Category 1 |

## Aspiration hazard

Not available.

**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

# Section 11. Toxicological information

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

## Potential chronic health effects

**Conclusion/Summary [Product]** : Not available.

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : Suspected of causing 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 |
| Benzidine | 309 | N/A | N/A | N/A | N/A |
| Pentachlorophenol | 27 | 26 | N/A | N/A | 0.05 |
| DDT | 87 | 250 | N/A | N/A | N/A |

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

# Section 12. Ecological information

## 12.1 Toxicity

| Product/ingredient name | Result | |
|---|---|---|
| Dichloromethane | Acute - LC50 - Marine water | 108.5 mg/l [48 hours] |
| | Acute - EC50 | 242 mg/l [72 hours] |
| | Acute - EC50 - Fresh water | 99 mg/l [96 hours] |
| | Chronic - NOEC - Fresh water | 56 mg/l [96 hours] |
| Benzidine | Acute - LC50 - Fresh water | 2.5 mg/l [96 hours] |
| | Acute - EC50 - Fresh water | 0.6 mg/l [48 hours] |
| Pentachlorophenol | Chronic - NOEC - Fresh water | 10 µg/l [28 days] |
| | Acute - LC50 - Fresh water | 5.6 µg/l [48 hours] |
| | Acute - EC50 - Marine water | 20.3 ppb [4 days] |
| | Acute - LC50 - Fresh water | 11 µg/l [96 hours] |
| | Chronic - NOEC - Fresh water | 1.8 µg/l [21 days] |
| | Chronic - NOEC - Fresh water | 5 µg/l [96 hours] |
| DDT | Acute - LC50 - Marine water | 0.26 µg/l [96 hours] |
| | Acute - EC50 - Fresh water | 0.4 µg/l [48 hours] |
| | Chronic - NOEC - Marine water | 100 ppb [4 days] |
| | Chronic - NOEC - Fresh water | 1 µg/l [21 days] |

**Conclusion/Summary [Product]** : Not available.

| Ingredient name | Conclusion/Summary |
|---|---|
| Dichloromethane | Harmful to aquatic organisms. |

# Section 12. Ecological information

## 12.2 Persistence and degradability

| Product/ingredient name | Result | | |
|---|---|---|---|
| Dichloromethane | OECD [Ready Biodegradability - Closed Bottle Test] | >70% [28 days] - Readily | Aerobic |

**Conclusion/Summary [Product]** : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| Dichloromethane | - | - | Readily |

## 12.3 Bioaccumulative potential

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| Semi-Volatiles GC/MS Tuning Standard | 5 | - | High |
| Dichloromethane | 1.25 | 22.91 | Low |
| Benzidine | 1.34 | - | Low |
| Pentachlorophenol | 5.12 | 457.09 | Low |
| DDT | 6.91 | 19498.45 | 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.**

# Section 13. Disposal considerations

**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.

**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 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.

**TSCA 5(a)2 final significant new use rules**: Benzidine; DDT

**TSCA 6 final risk management**: Dichloromethane

**Clean Water Act (CWA) 307**: Dichloromethane; Benzidine; Pentachlorophenol; DDT

**Clean Water Act (CWA) 311**: Pentachlorophenol; DDT

**TSCA 12(b) - Chemical export notification**

| | One time notification | | Annual notification | | |
|---|---|---|---|---|---|
| Name | 4 | 5 | 5(f) | 6 | 7 |
| methylene chloride | Not listed | Not listed | Not listed | Listed | Not listed |

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

# Section 15. Regulatory information

**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

No products were found.

**SARA 304 RQ** : Not applicable.

## SARA 311/312

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

### Composition/information on ingredients

| Name | % | Classification |
|---|---|---|
| Dichloromethane | ≥90 | SKIN IRRITATION - Category 2<br>EYE IRRITATION - Category 2A<br>CARCINOGENICITY - Category 2<br>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 |
| Benzidine | <0.1 | ACUTE TOXICITY (oral) - Category 4<br>SKIN SENSITIZATION - Category 1B<br>GERM CELL MUTAGENICITY - Category 1B<br>CARCINOGENICITY - Category 1A |
| Pentachlorophenol | ≤0.1 | COMBUSTIBLE DUSTS<br>ACUTE TOXICITY (oral) - Category 2<br>ACUTE TOXICITY (dermal) - Category 1<br>ACUTE TOXICITY (inhalation) - Category 2<br>EYE IRRITATION - Category 2B<br>CARCINOGENICITY - Category 2<br>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3<br>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 |
| DDT | ≤0.1 | ACUTE TOXICITY (oral) - Category 3<br>ACUTE TOXICITY (dermal) - Category 3<br>CARCINOGENICITY - Category 2<br>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 |

## SARA 313

| | Product name | CAS number | % |
|---|---|---|---|
| **Form R - Reporting requirements** | Dichloromethane | 75-09-2 | ≥90 |
| **Supplier notification** | Dichloromethane | 75-09-2 | ≥90 |

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

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

# Section 15. Regulatory information

## California Prop. 65

⚠ **WARNING**: This product can expose you to chemicals including DDT, which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including dichloromethane, Benzidine [and its salts] and Pentachlorophenol, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

| Ingredient name | No significant risk level | Maximum acceptable dosage level |
|---|---|---|
| dichloromethane | Yes. | - |
| Benzidine [and its salts] | Yes. | - |
| Pentachlorophenol | Yes. | - |
| DDT | - | - |

## 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** : 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

# Section 16. Other information

| Classification | Justification |
|---|---|
| SKIN IRRITATION - Category 2 | Calculation method |
| EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 2 | On basis of test data |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| AQUATIC HAZARD (ACUTE) - Category 1 | Expert judgment |
| AQUATIC HAZARD (LONG-TERM) - Category 1 | Expert judgment |

## History

**Date of issue/Date of revision** : 05/09/2025

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**Version** : 9

**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

**Indicates information that has changed from previously issued version.**

## Notice to reader

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