Conforms to HPR 2023

SAFETY DATA SHEET

Agilent Technologies

GC - MS Semi-Volatiles Analyzer Checkout Mix

Section 1. Identification

Product identifier : GC - MS Semi-Volatiles Analyzer Checkout Mix

Part no. : 5190-0473

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

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

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

Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Section 2. Hazard identification

Classification of the substance or mixture

H315	SKIN IRRITATION - Category 2
H319	EYE IRRITATION - Category 2A
H317	SKIN SENSITIZATION - Category 1
H350	CARCINOGENICITY - Category 1B
H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
H400	AQUATIC HAZARD (ACUTE) - Category 1
H410	AQUATIC HAZARD (LONG-TERM) - Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H350 - May cause 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.

Section 2. Hazard identification

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.
P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
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.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	Synonyms	% (w/w)	Identifiers
Dichloromethane	Methylene chloride	≥80	CAS: 75-09-2
S-tert-Butylthiomethyl O,O-diethylphosphorodithioate	Terbufos	≤0.1	CAS: 13071-79-9
DDT	4,4'-DDT	≤0.1	CAS: 50-29-3
Atrazine (ISO)	Atrazine	≤0.1	CAS: 1912-24-9
Endrin (ISO)	Endrin	≤0.1	CAS: 72-20-8
Aldrin (ISO)	Aldrin	≤0.1	CAS: 309-00-2
Simazine	Simazine	≤0.1	CAS: 122-34-9
Hexachlorocylcopentadiene	Hexachlorocylcopentadiene	≤0.1	CAS: 77-47-4
Dimethylnitrosoamine	N-Nitrosodimethylamine	≤0.1	CAS: 62-75-9
Pentachlorophenol	Pentachlorophenol	≤0.1	CAS: 87-86-5
1,4-Dichlorobenzene-D4	1,4-Dichlorobenzene-d4	≤0.1	CAS: 3855-82-1
Mevinphos (ISO)	Mevinphos (phosdrin)	≤0.1	CAS: 7786-34-7

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

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

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 : 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. In the event of any complaints or symptoms, avoid further exposure. 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.

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. May cause an allergic skin reaction.

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.

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

Section 4. First-aid measures

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

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

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

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

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".

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.

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

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

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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.

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 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Dichloromethane	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 63 ppm. TWA 8 hours: 50 ppm. **CA British Columbia Provincial (Canada, 4/2024)** Carc 2A. TWA 8 hours: 25 ppm. **CA Ontario Provincial (Canada, 6/2019)** TWA 8 hours: 50 ppm. **CA Quebec Provincial (Canada, 2/2024)** C2. TWAEV 8 hours: 50 ppm. TWAEV 8 hours: 174 mg/m³. **CA Alberta Provincial (Canada, 3/2023)** OEL 8 hours: 174 mg/m³. OEL 8 hours: 50 ppm.
S-tert-Butylthiomethyl O,O-diethylphosphorodithioate	**CA Saskatchewan Provincial (Canada, 4/2021)** Absorbed through skin. STEL 15 minutes: 0.03 mg/m³. Form:

Section 8. Exposure controls/personal protection

	Inhalable fraction and vapour. TWA 8 hours: 0.01 mg/m³. Form: Inhalable fraction and vapour. **CA British Columbia Provincial (Canada, 4/2024)** Absorbed through skin. Notes: vapour and inhalable aerosol. TWA 8 hours: 0.01 mg/m³. Form: Inhalable vapour and aerosol. **CA Ontario Provincial (Canada, 6/2019)** Absorbed through skin. TWA 8 hours: 0.01 mg/m³. Form: Inhalable fraction and vapour.. **CA Quebec Provincial (Canada, 2/2024)** Absorbed through skin. TWAEV 8 hours: 0.01 mg/m³. Form: inhalable fraction and vapour. **CA Alberta Provincial (Canada, 3/2023)** Absorbed through skin. OEL 8 hours: 0.01 mg/m³.
DDT	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 3 mg/m³. TWA 8 hours: 1 mg/m³. **CA British Columbia Provincial (Canada, 4/2024)** Carc 2A. TWA 8 hours: 1 mg/m³. **CA Ontario Provincial (Canada, 6/2019)** TWA 8 hours: 1 mg/m³. **CA Quebec Provincial (Canada, 2/2024)** C3. TWAEV 8 hours: 1 mg/m³. **CA Alberta Provincial (Canada, 3/2023)** OEL 8 hours: 1 mg/m³.
Atrazine (ISO)	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 10 mg/m³. TWA 8 hours: 5 mg/m³. **CA British Columbia Provincial (Canada, 4/2024)** Repr. TWA 8 hours: 5 mg/m³. **CA Ontario Provincial (Canada, 6/2019)** TWA 8 hours: 2 mg/m³. Form: Inhalable particulate matter.. **CA Quebec Provincial (Canada, 2/2024)** TWAEV 8 hours: 5 mg/m³. **CA Alberta Provincial (Canada, 3/2023)** OEL 8 hours: 5 mg/m³.
Endrin (ISO)	**CA Saskatchewan Provincial (Canada, 4/2021)** Absorbed through skin. STEL 15 minutes: 0.3 mg/m³. TWA 8 hours: 0.1 mg/m³. **CA British Columbia Provincial (Canada, 4/2024)** Absorbed through skin. TWA 8 hours: 0.1 mg/m³. **CA Ontario Provincial (Canada, 6/2019)** Absorbed through skin. TWA 8 hours: 0.1 mg/m³. **CA Quebec Provincial (Canada, 2/2024)**

Section 8. Exposure controls/personal protection

	Absorbed through skin. TWAEV 8 hours: 0.1 mg/m³. **CA Alberta Provincial (Canada, 3/2023)** Absorbed through skin. OEL 8 hours: 0.1 mg/m³.
Aldrin (ISO)	**CA Saskatchewan Provincial (Canada, 4/2021)** Absorbed through skin. STEL 15 minutes: 0.75 mg/m³. TWA 8 hours: 0.25 mg/m³. **CA British Columbia Provincial (Canada, 4/2024)** Carc 2A. Absorbed through skin. Notes: vapour and inhalable aerosol. TWA 8 hours: 0.05 mg/m³. Form: Inhalable vapour and aerosol. **CA Ontario Provincial (Canada, 6/2019)** Absorbed through skin. TWA 8 hours: 0.05 mg/m³. Form: Inhalable fraction and vapour.. **CA Quebec Provincial (Canada, 2/2024)** Absorbed through skin. TWAEV 8 hours: 0.25 mg/m³. **CA Alberta Provincial (Canada, 3/2023)** Absorbed through skin. OEL 8 hours: 0.25 mg/m³.
Simazine	**CA Ontario Provincial (Canada, 6/2019)** TWA 8 hours: 0.5 mg/m³. Form: Inhalable particulate matter..
Hexachlorocylcopentadiene	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 0.03 ppm. TWA 8 hours: 0.01 ppm. **CA British Columbia Provincial (Canada, 4/2024)** TWA 8 hours: 0.01 ppm. **CA Ontario Provincial (Canada, 6/2019)** TWA 8 hours: 0.01 ppm. **CA Quebec Provincial (Canada, 2/2024)** TWAEV 8 hours: 0.01 ppm. TWAEV 8 hours: 0.11 mg/m³. **CA Alberta Provincial (Canada, 3/2023)** OEL 8 hours: 0.1 mg/m³. OEL 8 hours: 0.01 ppm.
Dimethylnitrosoamine	**CA British Columbia Provincial (Canada, 4/2024)** Carc 2A. Absorbed through skin. **CA Ontario Provincial (Canada, 6/2019) [N-Nitrosamines, including n-Nitrosodimethylamine]** Absorbed through skin. **CA Quebec Provincial (Canada, 2/2024)** C2. Absorbed through skin.
Pentachlorophenol	**CA Saskatchewan Provincial (Canada, 4/2021)** Absorbed through skin. STEL 15 minutes: 1.5 mg/m³. TWA 8 hours: 0.5 mg/m³. **CA British Columbia Provincial (Canada, 4/2024)** Carc 1. Absorbed through skin. TWA 8 hours: 0.5 mg/m³. **CA Ontario Provincial (Canada, 6/2019)**

Section 8. Exposure controls/personal protection

	Absorbed through skin. TWA 8 hours: 0.5 mg/m³. Form: Inhalable fraction and vapour.. STEL 15 minutes: 1 mg/m³. Form: Inhalable fraction and vapour.. **CA Quebec Provincial (Canada, 2/2024)** C2. Absorbed through skin. TWAEV 8 hours: 0.5 mg/m³. **CA Alberta Provincial (Canada, 3/2023)** Absorbed through skin. OEL 8 hours: 0.5 mg/m³.
1,4-Dichlorobenzene-D4	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 15 ppm. TWA 8 hours: 10 ppm. **CA British Columbia Provincial (Canada, 4/2024)** Carc 2B. TWA 8 hours: 10 ppm. **CA Ontario Provincial (Canada, 6/2019)** TWA 8 hours: 10 ppm. **CA Quebec Provincial (Canada, 2/2024)** C3. TWAEV 8 hours: 10 ppm. **CA Alberta Provincial (Canada, 3/2023)** OEL 8 hours: 10 ppm. OEL 8 hours: 60 mg/m³.
Mevinphos (ISO)	**CA Saskatchewan Provincial (Canada, 4/2021)** Absorbed through skin. STEL 15 minutes: 0.03 mg/m³. Form: Inhalable fraction and vapour. TWA 8 hours: 0.01 mg/m³. Form: Inhalable fraction and vapour. **CA British Columbia Provincial (Canada, 4/2024)** Absorbed through skin. Notes: vapour and inhalable aerosol. TWA 8 hours: 0.01 mg/m³. Form: Inhalable vapour and aerosol. **CA Ontario Provincial (Canada, 6/2019)** Absorbed through skin. TWA 8 hours: 0.01 mg/m³. Form: Inhalable fraction and vapour.. **CA Quebec Provincial (Canada, 2/2024)** Absorbed through skin. TWAEV 8 hours: 0.01 ppm. TWAEV 8 hours: 0.092 mg/m³. STEV 15 minutes: 0.03 ppm. STEV 15 minutes: 0.27 mg/m³. **CA Alberta Provincial (Canada, 3/2023)** Absorbed through skin. OEL 8 hours: 0.01 mg/m³.

Biological exposure indices

No exposure indices known.

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.

Section 8. Exposure controls/personal protection

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. Contaminated work clothing should not be allowed out of the workplace. 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

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

Appearance

Physical state : Liquid. [Clear.]

Color : Colorless.

Odor : Chloroform.

Odor threshold : Not available.

pH : Not available.

Melting point/freezing point : -97°C (-142.6°F)

Initial boiling point and boiling range : 40°C (104°F)

Flash point : Not available.

Evaporation rate : 27.5 (butyl acetate = 1)

Flammability (solid, gas) : Not applicable.

Section 9. Physical and chemical properties

Upper/lower flammability or explosive limits : Not available.

Vapor pressure : 47.1 kPa (353.1 mm Hg)

Vapor density : 2.93 [Air = 1]

Relative density : Not available.

Density : 1.32 g/cm³

Solubility :

Media	Result
water	Insoluble

Miscible with water : No.

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature : 556.1°C (1033°F)

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

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

Chemical stability : The product is stable.

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

Conditions to avoid : No specific data.

Incompatible materials : May react or be incompatible with oxidizing materials.
Reactive or incompatible with the following materials: metals and alkalis.
aluminum , Magnesium.

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	
Dichloromethane	Rat - Inhalation - LC50 Vapor	76000 mg/m³ [4 hours]
S-tert-Butylthiomethyl O,O-diethylphosphorodithioate	Rat - Oral - LD50	1.6 mg/kg
	Rat - Dermal - LD50	7.4 mg/kg
	Rabbit - Dermal - LD50	1 mg/kg
DDT	Rat - Oral - LD50	87 mg/kg
	Rabbit - Dermal - LD50	300 mg/kg
	Rat - Dermal - LD50	250 mg/kg
Atrazine (ISO)	Rabbit - Dermal - LD50	7500 mg/kg
	Rat - Oral - LD50	672 mg/kg

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	Rat - Dermal - LD50	3 g/kg
	Rat - Inhalation - LC50 Dusts and mists	5200 mg/m³ [4 hours]
Aldrin (ISO)	Rat - Dermal - LD50	98 mg/kg
	Rabbit - Dermal - LD50	15 mg/kg
	Rat - Oral - LD50	38 mg/kg
Simazine	Rat - Oral - LD50	971 mg/kg
	Rat - Dermal - LD50	>5 g/kg
	Rabbit - Dermal - LD50	>10200 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	9800 mg/m³ [4 hours]
Hexachlorocylcopentadiene	Rat - Oral - LD50	200 mg/kg
	Rabbit - Dermal - LD50	430 mg/kg
	Rat - Inhalation - LC50 Vapor	1600 ppb [4 hours]
Dimethylnitrosoamine	Rat - Oral - LD50	26 mg/kg
	Rat - Inhalation - LC50 Vapor	78 ppm [4 hours]
Pentachlorophenol	Rat - Oral - LD50	27 mg/kg
	Rat - Dermal - LD50	26 mg/kg
1,4-Dichlorobenzene-D4	Rat - Oral - LD50	500 mg/kg
	Rat - Dermal - LD50	2000 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	5000 mg/m³ [4 hours]
Mevinphos (ISO)	Rat - Oral - LD50	3 mg/kg
	Rat - Dermal - LD50	4200 µg/kg
	Rabbit - Dermal - LD50	4700 µg/kg
	Rat - Inhalation - LC50 Vapor	14 ppm [1 hours]

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name	Result	
Dichloromethane	Rabbit - Skin - Moderate irritant	Duration of treatment/ exposure: 24 hours
Atrazine (ISO)	Rabbit - Skin - Mild irritant	-
Simazine	Rabbit - Skin - Mild irritant	-
Hexachlorocylcopentadiene	Rabbit - Skin - Severe irritant	Duration of treatment/ exposure: 24 hours
	Rabbit - Skin - Severe irritant	Duration of treatment/ exposure: 4 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

Product/ingredient name	Result	
Dichloromethane	Rabbit - Eyes - Moderate irritant	-
Atrazine (ISO)	Rabbit - Eyes - Severe irritant	-
Simazine	Rabbit - Eyes - Moderate irritant	-
Hexachlorocylcopentadiene	Rabbit - Eyes - Severe irritant	Duration of treatment/ exposure: 5 minutes
Pentachlorophenol	Rabbit - Eyes - Mild irritant	Duration of treatment/ exposure: 24 hours

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Conclusion/Summary [Product] : Not available.

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Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Skin

Conclusion/Summary [Product] : May cause skin sensitization.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	IARC	NTP	ACGIH
Dichloromethane	2A	Reasonably anticipated to be a human carcinogen.	A3
S-tert-Butylthiomethyl O,O-diethylphosphorodithioate	-	-	A4
DDT	2A	Reasonably anticipated to be a human carcinogen.	A3
Atrazine (ISO)	3	-	A3
Endrin (ISO)	3	-	A4
Aldrin (ISO)	2A	-	A3
Simazine	3	-	A3
Hexachlorocylcopentadiene	-	-	A4
Dimethylnitrosoamine	2A	Reasonably anticipated to be a human carcinogen.	A3
Pentachlorophenol	1	Reasonably anticipated to be a human carcinogen.	A3
1,4-Dichlorobenzene-D4	2B	Reasonably anticipated to be a human carcinogen.	A3
Mevinphos (ISO)	-	-	A4

Reproductive toxicity

Conclusion/Summary [Product] : Not available.

Section 11. Toxicological information

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
Dichloromethane	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Hexachlorocylcopentadiene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Pentachlorophenol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
S-tert-Butylthiomethyl O,O-diethylphosphorodithioate	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous system) - Category 2
DDT	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS), endocrine) - Category 1
Atrazine (ISO)	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (heart) (oral) - Category 2
Aldrin (ISO)	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
Hexachlorocylcopentadiene	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (ovary) (inhalation) - Category 1
Dimethylnitrosoamine	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (liver) - Category 1
Pentachlorophenol	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS), immune system, kidneys, lungs, thyroid) - Category 2

Aspiration hazard

Product/ingredient name	Result
Hexachlorocylcopentadiene	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. May cause an allergic skin reaction.

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

Section 11. Toxicological information

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

Conclusion/Summary [Product] : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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
S-tert-Butylthiomethyl O,O-diethylphosphorodithioate	1.6	1	N/A	N/A	N/A
DDT	87	250	N/A	N/A	N/A
Atrazine (ISO)	672	3000	N/A	N/A	5.2
Endrin (ISO)	5	300	N/A	N/A	N/A
Aldrin (ISO)	38	15	N/A	N/A	N/A
Simazine	971	N/A	N/A	N/A	9.8
Hexachlorocylcopentadiene	200	430	N/A	0.02	N/A
Dimethylnitrosoamine	26	N/A	N/A	0.236418	N/A
Pentachlorophenol	27	26	N/A	N/A	0.05
Mevinphos (ISO)	5	4.2	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

Toxicity

Product/ingredient name	Result		
Dichloromethane	Acute - LC50 - Marine water	108.5 mg/l [48 hours]	Crustaceans - Daggerblade grass shrimp - *Palaemon pugio* - Juvenile (Fledgling, Hatchling, Weanling)
	Acute - EC50	242 mg/l [72 hours]	Algae - Green algae - *Chlamydomonas reinhardtii* - Exponential growth phase
	Acute - EC50 - Fresh water	99 mg/l [96 hours]	Fish - Fathead minnow - *Pimephales promelas* - Adult
	Chronic - NOEC - Fresh water	56 mg/l [96 hours]	Algae - Green algae - *Raphidocelis subcapitata*
S-tert-Butylthiomethyl O,O-diethylphosphorodithioate	Acute - EC50 - Fresh water	0.121 µg/l [48 hours]	Crustaceans - Water flea - *Ceriodaphnia dubia* - Neonate
	Acute - EC50 - Fresh water	0.59 mg/l [96 hours]	Algae - Diatom - *Nitzschia sp.* - Exponential growth phase
	Chronic - NOEC - Fresh water	0.03 ppb [21 days]	Daphnia - Water flea - *Daphnia magna*
	Acute - LC50 - Fresh water	0.77 ppb [96 hours]	Fish - Bluegill - *Lepomis macrochirus* - Juvenile (Fledgling, Hatchling, Weanling)
	Chronic - NOEC	0.64 ppb [95 days]	Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss*
	Chronic - NOEC - Fresh water	10 µg/l [4 days]	Algae - Algae - *Algae*
DDT	Acute - LC50 - Marine water	0.26 µg/l [96 hours]	Fish - Dwarf perch - *Micrometrus minimus*
	Acute - EC50 - Fresh water	0.4 µg/l [48 hours]	Daphnia - Water flea - *Daphnia pulex*
	Chronic - NOEC - Marine water	100 ppb [4 days]	Algae - Green algae - *Dunaliella tertiolecta* - Exponential growth phase
	Chronic - NOEC - Fresh water	1 µg/l [21 days]	Daphnia - Water flea - *Daphnia magna* - Neonate
Atrazine (ISO)	Acute - EC50 - Fresh water	240 µg/l [48 hours]	Daphnia - Water flea - *Daphnia pulex*
	Chronic - NOEC - Fresh water	0.26 ppb [16 weeks]	Fish - Guppy - *Poecilia reticulata* - Adult
	Acute - LC50 - Fresh water	1.25 ppm [96 hours]	Fish - Carnatic Carp - *Barbodes carnaticus*
	Chronic - NOEC - Fresh water	25 µg/l [21 days]	Crustaceans - Water flea - *Ceriodaphnia sp.*
	Acute - EC50 - Fresh water	0.004 mg/l [96 hours]	Algae - Green algae - *Raphidocelis subcapitata*

Section 12. Ecological information

	Chronic - NOEC - Fresh water	0.0005 mg/l [96 hours]	Algae - Green algae - *Raphidocelis subcapitata*
Endrin (ISO)	Acute - LC50 - Fresh water	0.0011 ng/l [48 hours]	Crustaceans - Aquatic sowbug - *Asellus aquaticus* - Juvenile (Fledgling, Hatchling, Weanling)
	Acute - LC50 - Fresh water	0.048 µg/l [96 hours]	Fish - Chinook salmon - *Oncorhynchus tshawytscha*
	Chronic - NOEC - Marine water	0.12 µg/l [4 weeks]	Fish - Sheepshead minnow - *Cyprinodon variegatus* - Embryo
Aldrin (ISO)	Acute - LC50 - Fresh water	1.2 µg/l [96 hours]	Fish - Walking catfish - *Clarias batrachus*
	Acute - LC50 - Fresh water	0.21 µg/l [48 hours]	Crustaceans - Crab - *Paratelphusa jacquemontii* - Intermolt
Simazine	Acute - EC50 - Fresh water	1000 µg/l [48 hours]	Daphnia - Water flea - *Daphnia magna* - Instar
	Acute - LC50 - Fresh water	250 µg/l [96 hours]	Fish - Striped bass - *Morone saxatilis*
	Acute - IC50 - Fresh water	48.6 µg/l [72 hours]	Algae - Green algae - *Selenastrum sp.* - Exponential growth phase
	Chronic - NOEC - Fresh water	0.06 µg/l [90 days]	Fish - common carp - *Cyprinus carpio*
	Chronic - NOEC - Fresh water	0.01 mg/l [3 days]	Aquatic plants - Pickerelweed - *Pontederia cordata*
	Chronic - NOEC - Fresh water	2.5 ppm [21 days]	Daphnia - Water flea - *Daphnia magna*
Hexachlorocylcopentadiene	Acute - LC50 - Fresh water	0.039 mg/l [48 hours]	Daphnia - Water flea - *Daphnia magna*
	Acute - LC50 - Fresh water	7 µg/l [96 hours]	Fish - Fathead minnow - *Pimephales promelas* - Larvae
	Chronic - NOEC - Fresh water	0.009 mg/l [21 days]	Daphnia - Water flea - *Daphnia magna*
Dimethylnitrosoamine	Acute - LC50 - Fresh water	940 mg/l [96 hours]	Fish - Fathead minnow - *Pimephales promelas*
	Acute - EC50 - Fresh water	4000 µg/l [96 hours]	Algae - Green algae - *Raphidocelis subcapitata*
Pentachlorophenol	Chronic - NOEC - Fresh water	10 µg/l [28 days]	Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss* - Juvenile (Fledgling, Hatchling, Weanling)
	Acute - LC50 - Fresh water	5.6 µg/l [48 hours]	Crustaceans - Scud - *Gammarus pulex*
	Acute - EC50 - Marine water	20.3 ppb [4 days]	Algae - Diatom - *Skeletonema costatum*
	Acute - LC50 - Fresh water	11 µg/l [96 hours]	Fish - Shortnose Sturgeon - *Acipenser brevirostrum*
	Chronic - NOEC - Fresh water	1.8 µg/l [21 days]	Daphnia - Water flea - *Daphnia magna*

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	Chronic - NOEC - Fresh water	5 µg/l [96 hours]	Algae - Green algae - *Raphidocelis subcapitata*
1,4-Dichlorobenzene-D4	Acute - EC50 - Fresh water	0.7 mg/l [48 hours]	Daphnia - Water flea - *Daphnia magna*
	Acute - EC50 - Fresh water	1.1 µg/l [96 hours]	Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss* - Fingerling
	Chronic - NOEC - Fresh water	5 mg/l [3 days]	Algae - Green algae - *Chlorella pyrenoidosa* - Exponential growth phase
	Acute - EC50 - Fresh water	1.6 mg/l [96 hours]	Algae - Green algae - *Selenastrum capricornutum*
	Chronic - NOEC - Fresh water	0.3 mg/l [21 days]	Daphnia - Water flea - *Daphnia magna*
	Chronic - NOEC - Fresh water	349 µg/l [28 days]	Fish - Flagfish - *Jordanella floridae* - Fry
Mevinphos (ISO)	Acute - EC50 - Fresh water	0.16 µg/l [48 hours]	Daphnia - Water flea - *Daphnia pulex* - Larvae
	Acute - LC50 - Fresh water	41.77 ppb [96 hours]	Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss*

Conclusion/Summary [Product] : Not available.

Ingredient name	Conclusion/Summary
Dichloromethane	Harmful to aquatic organisms.

Persistence and degradability

Product/ingredient name	Result		
Dichloromethane	OECD [Ready Biodegradability - Closed Bottle Test]	>70% [28 days] - Readily	Aerobic
Atrazine (ISO)	-	9.86% [28 days] - Not readily	-

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Dichloromethane	-	-	Readily
Atrazine (ISO)	-	-	Not readily
Aldrin (ISO)	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Dichloromethane	1.25	22.91	Low
S-tert-Butylthiomethyl O,O-diethylphosphorodithioate	4.48	-	High
DDT	6.91	19498.45	High
Atrazine (ISO)	2.59	7.94	Low
Endrin (ISO)	5.2	7413.1	High
Aldrin (ISO)	6.5	5495.41	High
Simazine	2.18	3.63	Low
Hexachlorocylcopentadiene	5.04	-	High

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Dimethylnitrosoamine	-0.57	-	Low
Pentachlorophenol	5.12	457.09	Low
1,4-Dichlorobenzene-D4	3.44	296	Low
Mevinphos (ISO)	0.13	-	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

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

Section 13. Disposal considerations

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.

Section 14. Transport information

TDG / 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.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : The following components are listed: dichloromethane

CEPA Toxic substances : The following components are listed: dichloromethane

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

Section 15. Regulatory information

Not listed.

Inventory list

Canada : Not determined.

United States : Not determined.

Section 16. Other information

History

Date of issue/Date of revision : 04/01/2025

Date of previous issue : 02/13/2023

Version : 8

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
DOT = Department of Transportation
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
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

Procedure used to derive the classification

Classification	Justification
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 1B	Calculation method
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

Indicates information that has changed from previously issued version.

Notice to reader

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