

# SAFETY DATA SHEET

GC - MS Semi-Volatiles Analyzer Checkout Mix, Part Number 5190-0473

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product name** : GC - MS Semi-Volatiles Analyzer Checkout Mix, Part Number 5190-0473  
**Part No.** : 5190-0473

### 1.2 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

### 1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG  
Hewlett-Packard-Str. 8  
76337 Waldbronn  
Germany  
0800 603 1000

**e-mail address of person responsible for this SDS** : pdl-msds\_author@agilent.com

### 1.4 Emergency telephone number

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +(44)-870-8200418

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

H350 CARCINOGENICITY - Category 1B  
H400 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1  
H410 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : H350 - May cause cancer.  
H410 - Very toxic to aquatic life with long lasting effects.

#### Precautionary statements

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## SECTION 2: Hazards identification

<b>Prevention</b>	: P201 - Obtain special instructions before use. P280 - Wear protective gloves. Wear protective clothing. Wear eye or face protection. P273 - Avoid release to the environment.
<b>Response</b>	: P391 - Collect spillage. P308 + P313 - IF exposed or concerned: Get medical attention.
<b>Storage</b>	: P405 - Store locked up.
<b>Disposal</b>	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazardous ingredients</b>	: dimethylnitrosoamine
<b>Supplemental label elements</b>	: Not applicable.
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	: Restricted to professional users.
<b>Special packaging requirements</b>	
<b>Tactile warning of danger</b>	: Not applicable.

### 2.3 Other hazards

**Other hazards which do not result in classification** : None known.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Dichloromethane	EC: 200-838-9 CAS: 75-09-2 Index: 602-004-00-3	≥90	Carc. 2, H351	[1] [2]
S-tert-Butylthiomethyl O,O-diethylphosphorodithioate	EC: 235-963-8 CAS: 13071-79-9 Index: 015-139-00-2	<0.1	Acute Tox. 2, H300 Acute Tox. 1, H310 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=1000)	[1]
DDT	EC: 200-024-3 CAS: 50-29-3 Index: 602-045-00-7	<0.1	Acute Tox. 3, H301 Carc. 2, H351 STOT RE 1, H372 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=1000)	[1]
Atrazine (ISO)	EC: 217-617-8 CAS: 1912-24-9 Index: 613-068-00-7	≤0.1	Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)	[1]
Endrin (ISO)	EC: 200-775-7 CAS: 72-20-8 Index: 602-051-00-X	<0.1	Acute Tox. 2, H300 Acute Tox. 3, H311 Aquatic Acute 1, H400 (M=100000000) Aquatic Chronic 1, H410 (M=100000000)	[1]
Aldrin (ISO)	EC: 206-215-8 CAS: 309-00-2 Index: 602-048-00-3	<0.1	Acute Tox. 3, H301 Acute Tox. 3, H311 Carc. 2, H351 STOT RE 1, H372	[1]

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### SECTION 3: Composition/information on ingredients

Simazine	EC: 204-535-2 CAS: 122-34-9 Index: 612-088-00-3	<0.01	Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=1000) Carc. 2, H351 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1000)	[1]
Hexachlorocyclopentadiene	EC: 201-029-3 CAS: 77-47-4 Index: 602-078-00-7	<0.1	Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1B, H314 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)	[1]
Dimethylnitrosoamine	EC: 200-549-8 CAS: 62-75-9 Index: 612-077-00-3	<0.1	Acute Tox. 3, H301 Acute Tox. 2, H330 Carc. 1B, H350 STOT RE 1, H372 Aquatic Chronic 2, H411	[1]
Pentachlorophenol	EC: 201-778-6 CAS: 87-86-5 Index: 604-002-00-8	<0.01	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10)	[1]
1,4-Dichlorobenzene-D4	CAS: 3855-82-1 Index: 602-035-00-2	<0.1	Eye Irrit. 2, H319 Carc. 2, H351 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=1)	[1] [2]
Mevinphos (ISO)	EC: 232-095-1 CAS: 7786-34-7 Index: 015-020-00-5	<0.1	Acute Tox. 2, H300 Acute Tox. 1, H310 Aquatic Acute 1, H400 (M=10000) Aquatic Chronic 1, H410 (M=10000)	[1]

**See Section 16 for the full text of the H statements declared above.**

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

#### Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

### SECTION 4: First aid measures

#### 4.1 Description of 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 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 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

## SECTION 4: First aid measures

need to be kept under medical surveillance for 48 hours.

- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. 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.
- 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.

### 4.2 Most important symptoms and effects, both acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

#### 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 any immediate medical attention and special treatment needed

- 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 5: Firefighting 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

- Hazards from the substance or mixture** : 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.

## SECTION 5: Firefighting measures

**Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
halogenated compounds  
carbonyl halides

### 5.3 Advice for firefighters

**Special precautions 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

**Additional information** : When heated, flammable vapours will be evolved.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised 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 spilt 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 material 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.

**6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## 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 vapour or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.

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## SECTION 7: Handling and storage

**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

**Storage** : 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### Seveso Directive - Reporting thresholds (in tonnes)

#### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
1	100	200

### 7.3 Specific end use(s)

**Recommendations** : Industrial applications, Professional applications.

**Industrial sector specific solutions** : Not applicable.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
Dichloromethane	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011). Absorbed through skin.</b> STEL: 1060 mg/m <sup>3</sup> 15 minutes. STEL: 300 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 350 mg/m <sup>3</sup> 8 hours.
1,4-Dichlorobenzene-D4	<b>EH40/2005 WELs (United Kingdom (UK), 12/2011).</b> STEL: 306 mg/m <sup>3</sup> 15 minutes. STEL: 50 ppm 15 minutes. TWA: 25 ppm 8 hours. TWA: 153 mg/m <sup>3</sup> 8 hours.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

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## SECTION 8: Exposure controls/personal protection

No DNELs/DMELs available.

### PNECs

No PNECs available

### 8.2 Exposure controls

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

#### 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.

**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.

**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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical state** : Liquid. [Clear.]

**Colour** : Colourless.

**Odour** : Chloroform.

**Odour threshold** : Not available.

**pH** : Not available.

**Melting point/freezing point** : -97°C

**Initial boiling point and boiling range** : 40°C

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## SECTION 9: Physical and chemical properties

Flash point	: Not available.
Evaporation rate	: 27.5 (butyl acetate = 1)
Flammability (solid, gas)	: Not applicable.
Upper/lower flammability or explosive limits	: Not available.
Vapour pressure	: 47.1 kPa [room temperature]
Vapour density	: 2.93 [Air = 1]
Relative density	: Not available.
Density	: 1.32 g/cm <sup>3</sup>
Solubility(ies)	: Very slightly soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: 556.1°C
Decomposition temperature	: Not available.
Viscosity	: Not available.
Explosive properties	: Not available.
Oxidising properties	: Not available.

### 9.2 Other information

No additional information.

## 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 oxidising materials.  Reactive or incompatible with the following materials: metals and alkalis. aluminium , Magnesium.
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



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**SECTION 11: Toxicological information**

Product/ingredient name	Result	Species	Dose	Exposure
Dichloromethane	LC50 Inhalation Vapour	Rat	76000 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	985 mg/kg	-
S-tert-Butylthiomethyl O,O-diethylphosphorodithioate	LD50 Dermal	Rabbit	1 mg/kg	-
	LD50 Dermal	Rat	7.4 mg/kg	-
DDT	LD50 Oral	Rat	1.6 mg/kg	-
	LD50 Dermal	Rabbit	300 mg/kg	-
Atrazine (ISO)	LD50 Dermal	Rat	250 mg/kg	-
	LD50 Oral	Rat	87 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	5200 mg/m <sup>3</sup>	4 hours
Endrin (ISO)	LD50 Dermal	Rabbit	7500 mg/kg	-
	LD50 Oral	Rat	3 g/kg	-
	LD50 Oral	Rat	672 mg/kg	-
Aldrin (ISO)	LD50 Dermal	Rabbit	60 mg/kg	-
	LD50 Dermal	Rat	12 mg/kg	-
	LD50 Oral	Rat	3 mg/kg	-
Simazine	LD50 Dermal	Rabbit	15 mg/kg	-
	LD50 Dermal	Rat	98 mg/kg	-
	LD50 Oral	Rat	38 mg/kg	-
Hexachlorocyclopentadiene	LC50 Inhalation Vapour	Rat	9800 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	>10200 mg/kg	-
	LD50 Dermal	Rat	>5 g/kg	-
Dimethylnitrosoamine	LD50 Oral	Rat	971 mg/kg	-
	LC50 Inhalation Vapour	Rat	1600 ppb	4 hours
	LD50 Dermal	Rabbit	430 mg/kg	-
Pentachlorophenol	LD50 Oral	Rat	200 mg/kg	-
	LC50 Inhalation Vapour	Rat	78 ppm	4 hours
	LD50 Oral	Rat	26 mg/kg	-
1,4-Dichlorobenzene-D4	LD50 Dermal	Rabbit	105 mg/kg	-
	LD50 Dermal	Rat	26 mg/kg	-
	LD50 Oral	Rat	27 mg/kg	-
Mevinphos (ISO)	LC50 Inhalation Vapour	Rat	5000 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rat	2000 mg/kg	-
	LD50 Oral	Rat	500 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	0.125 g/m <sup>3</sup>	1 hours
	LC50 Inhalation Vapour	Rat	14 ppm	1 hours
	LC50 Inhalation Vapour	Rat	7 ppm	4 hours
Mevinphos (ISO)	LD50 Dermal	Rabbit	4700 µg/kg	-
	LD50 Dermal	Rat	4200 µg/kg	-
	LD50 Oral	Rat	3 mg/kg	-

**Acute toxicity estimates**

Not available.

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
Dichloromethane	Eyes - Moderate irritant	Rabbit	-	162 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
Atrazine (ISO)	Eyes - Severe irritant	Rabbit	-	6320 Micrograms	-
	Skin - Mild irritant	Rabbit	-	38 milligrams	-
Simazine	Eyes - Moderate irritant	Rabbit	-	80 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
	Eyes - Severe irritant	Rabbit	-	5 minutes 100 milligrams	-

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## SECTION 11: Toxicological information

Pentachlorophenol	Skin - Severe irritant	Rabbit	-	24 hours 500 microliters	-
	Skin - Severe irritant	Rabbit	-	4 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	24 hours 100 microliters	-
	Skin - Mild irritant	Rabbit	-	24 hours 10 milligrams	-

**Skin** : Repeated exposure may cause skin dryness or cracking.

### Sensitiser

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Pentachlorophenol	Category 3	Not applicable.	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
DDT	Category 1	Not determined	Not determined
Atrazine (ISO)	Category 2	Not determined	Not determined
Aldrin (ISO)	Category 1	Not determined	Not determined
Dimethylnitrosoamine	Category 1	Not determined	Not determined

### Aspiration hazard

Not available.

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

### Potential acute health effects

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

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

**Skin contact** : No known significant effects or critical hazards.

**Eye contact** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Inhalation** : No specific data.

**Ingestion** : No specific data.

**Skin contact** : No specific data.

**Eye contact** : No specific data.

### Delayed and immediate effects as well as 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

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## SECTION 11: Toxicological information

<b>General</b>	: No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: May cause cancer. Risk of cancer depends on duration and level of exposure.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.
<b>Other information</b>	: Adverse symptoms may include the following: central nervous system depression, headache, nausea or vomiting, dizziness/vertigo, drowsiness/fatigue, carboxyhaemoglobinaemia

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure	
Dichloromethane	Acute EC50 242 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours	
	Acute EC50 0.98 mg/l Fresh water	Algae - Chlorella vulgaris	96 hours	
	Acute EC50 99000 µg/l Fresh water	Fish - Pimephales promelas	96 hours	
	Acute LC50 108500 µg/l Marine water	Crustaceans - Palaemonetes pugio - Juvenile (Fledgling, Hatchling, Weanling)	48 hours	
	Acute LC50 220000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours	
	Chronic NOEC 56000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours	
	S-tert-Butylthiomethyl O,O-diethylphosphorodithioate	Acute EC50 0.59 mg/l Fresh water	Algae - Nitzschia sp. - Exponential growth phase	96 hours
		Acute EC50 0.121 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
		Acute EC50 0.31 ppb Fresh water	Daphnia - Daphnia magna	48 hours
		Acute LC50 0.77 ppb Fresh water	Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
DDT	Chronic NOEC 10 µg/l Fresh water	Algae - Algae	4 days	
	Chronic NOEC 0.03 ppb Fresh water	Daphnia - Daphnia magna	21 days	
	Chronic NOEC 0.64 ppb	Fish - Oncorhynchus mykiss	95 days	
	Acute EC50 0.6 µg/l Marine water	Crustaceans - Penaeus duorarum	48 hours	
	Acute EC50 0.4 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours	
	Acute LC50 0.26 µg/l Marine water	Fish - Micrometrus minimus	96 hours	
	Chronic NOEC 100 ppb Marine water	Algae - Dunaliella tertiolecta - Exponential growth phase	4 days	
Atrazine (ISO)	Chronic NOEC 1 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days	
	Acute EC50 0.004 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours	
	Acute EC50 11 µg/l Fresh water	Algae - Scenedesmus acutus	72 hours	
	Acute EC50 92 µg/l Fresh water	Aquatic plants - Lemna minor	96 hours	
	Acute EC50 240 µg/l	Daphnia - Daphnia pulex	48 hours	
	Acute IC50 13.4 µg/l Marine water	Aquatic plants - Zostera muelleri	72 hours	
	Acute LC50 373.9 µg/l Marine water	Crustaceans - Acartia tonsa - Adult	48 hours	
	Acute LC50 1.25 ppm Fresh water	Fish - Barbodes carnaticus	96 hours	
	Chronic IC10 1.17 µg/l Marine water	Aquatic plants - Zostera muelleri	72 hours	
	Chronic NOEC 0.0005 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours	
Chronic NOEC 25 µg/l Fresh water	Crustaceans - Eurytemora affinis - Nauplii	21 days		
	Chronic NOEC 5 mg/l Fresh water	Daphnia - Daphnia magna -	21 days	

## SECTION 12: Ecological information

Endrin (ISO)	Chronic NOEC 0.26 ppb Fresh water Acute LC50 0.0000011 µg/l	Neonate Fish - <i>Poecilia reticulata</i> - Adult Crustaceans - <i>Asellus aquaticus</i> - Juvenile (Fledgling, Hatchling, Weanling)	16 weeks 48 hours
	Acute LC50 0.000022 µg/l Acute LC50 0.048 µg/l	Daphnia - <i>Daphnia pulex</i> Fish - <i>Oncorhynchus tshawytscha</i>	48 hours 96 hours
Aldrin (ISO)	Chronic NOEC 0.12 µg/l Marine water	Fish - <i>Cyprinodon variegatus</i> - Embryo	4 weeks
	Acute LC50 0.21 µg/l Fresh water	Crustaceans - <i>Paratelphusa jacquemontii</i> - Intermolt	48 hours
Simazine	Acute LC50 1000 µg/l	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 1.2 µg/l Fresh water	Fish - <i>Clarias batrachus</i>	96 hours
	Acute EC50 0.082 mg/l Fresh water	Algae - <i>Chlorella pyrenoidosa</i>	96 hours
	Acute EC50 0.124 mg/l Fresh water	Aquatic plants - <i>Lemna sp.</i>	96 hours
	Acute EC50 3200 µg/l Fresh water	Crustaceans - <i>Cypridopsis vidua</i> - Instar	48 hours
	Acute EC50 1000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Instar	48 hours
	Acute IC50 48.6 µg/l Fresh water	Algae - <i>Selenastrum sp.</i> - Exponential growth phase	72 hours
Hexachlorocyclopentadiene	Acute LC50 90 µg/l Fresh water	Fish - <i>Perca sp.</i>	96 hours
	Chronic NOEC 32 µg/l Fresh water	Algae - <i>Pseudokirchneriella subcapitata</i> - Exponential growth phase	72 hours
	Chronic NOEC 0.01 mg/l Fresh water	Aquatic plants - <i>Pontederia cordata</i>	3 days
	Chronic NOEC 2.5 ppm Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	Chronic NOEC 0.06 µg/l Fresh water	Fish - <i>Cyprinus carpio</i>	90 days
Dimethylnitrosoamine	Acute LC50 0.039 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 7 µg/l Fresh water	Fish - <i>Pimephales promelas</i> - Larvae	96 hours
Pentachlorophenol	Chronic NOEC 9 µg/l Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	Acute EC50 4000 µg/l Fresh water	Algae - <i>Pseudokirchneriella subcapitata</i>	96 hours
1,4-Dichlorobenzene-D4	Acute LC50 940000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours
	Acute EC50 20.3 ppb Marine water	Algae - <i>Skeletonema costatum</i>	4 days
	Acute EC50 610 µg/l Fresh water	Aquatic plants - <i>Lemna minor</i> - Exponential growth phase	4 days
	Acute EC50 0.263 mg/l Fresh water	Aquatic plants - <i>Plantae</i>	3 days
	Acute LC50 5.6 µg/l Fresh water	Crustaceans - <i>Gammarus pulex</i>	48 hours
	Acute LC50 38 µg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 11 µg/l Fresh water	Fish - <i>Acipenser brevirostrum</i>	96 hours
	Chronic NOEC 5 µg/l Fresh water	Algae - <i>Pseudokirchneriella subcapitata</i>	96 hours
	Chronic NOEC 0.01 mg/l Fresh water	Crustaceans - <i>Macrobrachium superbum</i>	21 days
	Chronic NOEC 0.12 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
1,4-Dichlorobenzene-D4	Chronic NOEC 10 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i> - Juvenile (Fledgling, Hatchling, Weanling)	28 days
	Acute EC50 50.6 ppm Marine water	Algae - <i>Skeletonema costatum</i>	72 hours
	Acute EC50 1600 µg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	96 hours
	Acute EC50 0.7 µg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute EC50 1.1 µg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
1,4-Dichlorobenzene-D4	Acute LC50 5.35 ppm Marine water	Crustaceans - <i>Americamysis bahia</i>	48 hours
	Chronic NOEC 5600 µg/l Fresh water	Algae - <i>Pseudokirchneriella subcapitata</i>	96 hours

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**SECTION 12: Ecological information**

Mevinphos (ISO)	Chronic NOEC 300 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.16 mg/kg Fresh water	Fish - Carassius auratus	30 days
	Acute EC50 0.16 µg/l Fresh water	Daphnia - Daphnia pulex - Larvae	48 hours
	Acute LC50 0.95 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 hours
	Acute LC50 41.77 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours

**12.2 Persistence and degradability**

Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Dichloromethane	-	-	Not readily

**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	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
Hexachlorocyclopentadiene	5.04	-	high
Dimethylnitrosoamine	-0.57	-	low
Pentachlorophenol	5.12	457.09	low
1,4-Dichlorobenzene-D4	3.37	296	low
Mevinphos (ISO)	0.13	-	low

**12.4 Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

**12.5 Results of PBT and vPvB assessment**

**PBT** : Not applicable.

**vPvB** : Not applicable.

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

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Product**

**Methods of disposal** : The generation of waste should be avoided or minimised 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.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

**Packaging**

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## SECTION 13: Disposal considerations

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : 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

ADR/RID / IMDG / IATA : Not regulated.

**Remarks:** De minimis quantities

**14.6 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.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** : Not available.

## SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**EU Regulation (EC) No. 1907/2006 (REACH)**

**Annex XIV - List of substances subject to authorisation**

**Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Restricted to professional users.

**Other EU regulations**

**Industrial emissions (integrated pollution prevention and control) - Air** : Listed

**Ozone depleting substances (1005/2009/EU)**

Not listed.

**Prior Informed Consent (PIC) (649/2012/EU)**

Not listed.

**Seveso Directive**

This product is controlled under the Seveso Directive.

**Danger criteria**

**Category**

1

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**



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## SECTION 15: Regulatory information

Not listed.

### Montreal Protocol (Annexes A, B, C, E)

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

<b>Australia</b>	: Not determined.
<b>Canada</b>	: Not determined.
<b>China</b>	: Not determined.
<b>Europe</b>	: Not determined.
<b>Japan</b>	: <b>Japan inventory (ENCS):</b> Not determined. <b>Japan inventory (ISHL):</b> Not determined.
<b>Malaysia</b>	: Not determined.
<b>New Zealand</b>	: Not determined.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: Not determined.
<b>Thailand</b>	: <input checked="" type="checkbox"/> Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: Not determined.
<b>Viet Nam</b>	: <input checked="" type="checkbox"/> Not determined.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments might still be required.

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	Calculation method Calculation method Calculation method

### Full text of abbreviated H statements

**GC - MS Semi-Volatiles Analyzer Checkout Mix, Part Number 5190-0473**

**SECTION 16: Other information**

H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H350	May cause cancer.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

**Full text of classifications [CLP/GHS]**

Acute Tox. 1, H310	ACUTE TOXICITY (dermal) - Category 1
Acute Tox. 2, H300	ACUTE TOXICITY (oral) - Category 2
Acute Tox. 2, H330	ACUTE TOXICITY (inhalation) - Category 2
Acute Tox. 3, H301	ACUTE TOXICITY (oral) - Category 3
Acute Tox. 3, H311	ACUTE TOXICITY (dermal) - Category 3
Acute Tox. 4, H302	ACUTE TOXICITY (oral) - Category 4
Aquatic Acute 1, H400	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1, H410	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2, H411	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Carc. 1B, H350	CARCINOGENICITY - Category 1B
Carc. 2, H351	CARCINOGENICITY - Category 2
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Corr. 1B, H314	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1, H317	SKIN SENSITISATION - Category 1
STOT RE 1, H372	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT RE 2, H373	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

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**Notice to reader**

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