

Section 1. Product and Company Identification

Product Name Trichlorfon
CAS Number 52-68-6

Parchem - fine & specialty chemicals
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EMERGENCY RESPONSE NUMBER
CHEMTEL
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All other Origins: 1 (813) 248-0585
Collect Calls Accepted

Section 2. Hazards Identification

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302
Acute toxicity, Dermal (Category 4), H312
Respiratory sensitization (Category 1), H334
Skin sensitization (Category 1), H317
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410

GHS Label Elements

Pictograms:



Signal word: DANGER

Hazard and precautionary statements

Hazard Statements

H302 + H312 Harmful if swallowed or in contact with skin
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.



- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P285 In case of inadequate ventilation wear respiratory protection.
- P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
- P302 + P352 + P312 IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell.
- P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
- P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- P363 Wash contaminated clothing before reuse.
- P391 Collect spillage.
- P501 Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS: None

Section 3. Composition / Information on Ingredients

Common Name	Trichlorfon
Synonym(s)	Metrifonate
Formula	$C_4H_8Cl_3O_4P$
CAS Number	52-68-6

Section 4. First Aid Measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin contact: Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

Eye contact: Flush eyes with water as a precaution.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Indication of any immediate medical attention and special treatment needed: No data available

Section 5. Firefighting Measures

Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide

Special hazards arising from the substance or mixture: Carbon oxides, Oxides of phosphorus, Hydrogen chloride gas

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary

Further information: No data available

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections: For disposal see section 13.

Section 7. Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510): Non Combustible Solids

Section 8. Exposure Controls / Personal Protection

Control parameters

Components with workplace control parameters



Component	CAS-No.	Value	Control Parameters	Basis
Trichlorfon	52-68-6	TWA	1.000000 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Cholinesterase inhibition Substances for which there is a Biological Exposure Index or Indices Acetylcholinesterase Inhibiting Pesticide Not classifiable as a human carcinogen		
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		Cholinesterase inhibition Substances for which there is a Biological Exposure Index or Indices Acetylcholinesterase Inhibiting Pesticide Not classifiable as a human carcinogen		

Exposure controls

Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9. Physical and Chemical Properties

Appearance: Solid

Odor: No data available

Odor threshold: No data available

pH: No data available

Melting point/freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point: No data available

Evaporation rate: No data available

Flammability (solid, gas): No data available
Upper/lower flammability or explosive limits: No data available
Vapor pressure: No data available
Vapor density: No data available
Relative density: No data available
Water solubility: No data available
Partition coefficient (n-octanol/water): No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available
Explosive properties: No data available
Oxidizing properties: No data available

Other safety information: No data available

Section 10. Stability and Reactivity

Reactivity: No data available
Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: No data available
Conditions to avoid: No data available
Incompatible materials: Strong oxidizing agents

Hazardous decomposition products

Other decomposition products: No data available
In the event of fire: see section 5

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat: 882 mg/kg
LC50 Inhalation - Rat: 1,300 mg/m³
LD50 Dermal - Rat: 2,000 mg/kg
Skin corrosion/irritation: No data available

Serious eye damage/eye irritation

Eyes - Rabbit
Result: Mild eye irritation

Respiratory or skin sensitization: No data available



Germ cell mutagenicity

Ames test
Result: positive

Carcinogenicity

Carcinogenicity - Rat - Skin

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors.

Carcinogenicity - Rat - Intramuscular

Tumorigenic: Carcinogenic by RTECS criteria. Liver: Tumors. Blood: Tumors.

Carcinogenicity - Rat - Oral

Tumorigenic: Carcinogenic by RTECS criteria. Liver: Tumors. Blood: Tumors.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Trichlorfon)

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: No data available

Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: No data available

Additional Information

RTECS: TA0700000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12. Ecological Information

Toxicity

Toxicity to fish

LC50 - Oncorhynchus mykiss (rainbow trout): 0.114 mg/l (96.0 h)

LC50 - Oncorhynchus mykiss (rainbow trout): 0.7 mg/l (96.0 h)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea): 0.00005 mg/l (48 h)

Persistence and degradability

Bioaccumulation

Cyprinodon variegatus (sheepshead minnow): 26.9 mg/l (96h)

Bioconcentration factor (BCF): 0.11

Bioaccumulative potential: No data available

Mobility in soil: No data available



Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

DOT (US)

UN number: 3077

Class: 9

Packing group: III

Proper shipping name: Environmentally Hazardous Substances, Solid, N.O.S. (Trichlorfon)

Reportable Quantity (RQ): 100 lbs

Marine pollutant: Yes

Poison Inhalation Hazard: No

IMDG

UN number: 3077

Class: 9

Packing group: III

EMS-No: F-A, S-F

Proper shipping name: Environmentally Hazardous Substance, Solid, N.O.S. (Trichlorfon)

Marine pollutant: Yes

IATA

UN number: 3077

Class: 9

Packing group: III

Proper shipping name: Environmentally Hazardous Substances, Solid, N.O.S. (Trichlorfon)

Section 15. Regulatory Information

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:



Trichlorfon (CAS-No. 52-68-6)
Revision: Date: 1994-04-01

SARA 311/312 Hazards: Acute Health Hazard

Massachusetts Right to Know Components

Trichlorfon (CAS-No. 52-68-6)
Revision: Date: 1994-04-01

Pennsylvania Right to Know Components

Trichlorfon (CAS-No. 52-68-6)
Revision: Date: 1994-04-01

New Jersey Right to Know Components

Trichlorfon (CAS-No. 52-68-6)
Revision: Date: 1994-04-01

California Prop. 65 Components: This product does not contain any chemicals Known to State of California to cause cancer, birth defects, or any other reproductive harm.

HMIS Rating

Health: 2*
Flammability: 0
Reactivity: 0

NFPA Rating

Health: 2
Flammability: 0
Reactivity: 0

Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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