



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
HPR, Schedule 1

Revision date 12-Jan-2024

Revision Number 1

1. Identification

Product identifier

Product Name Prothiofos-D5

Other means of identification

Product Code(s) TRC-P838843-25MG

Recommended use of the chemical and restrictions on use

Recommended use Laboratory use

Restrictions on use No information available

Details of the supplier of the safety data sheet

Initial supplier identifier

Toronto Research Chemicals
2 Brisbane Road
Toronto, ON
M3J 2J8

Emergency number: +1(416) 665-9696 between 0800-1700 (GMT-5)

Fax: +14166654439

Web: www.trc-canada.com

E-mail sds-request@lgcgroup.com

Emergency telephone number

Emergency Telephone

For Hazardous Materials or Dangerous Goods Incident

Spill, Leak, Fire Exposure, or Accident

Call CHEMTREC:

USA & Canada 1-800-424-9300

Rest of the world +1 703-741-5970

2. Hazard identification

Classification

Classification according to WHIMIS

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Vapours)	Category 2
Skin sensitisation	Category 1



SAFETY DATA SHEET

TRC-P838843-25MG - Prothiofos-D5

Revision date 12-Jan-2024

Specific target organ toxicity — single exposure	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

Label elements

Danger

Hazard statements

Classification according to WHIMIS

Harmful if swallowed

Fatal if inhaled

May cause an allergic skin reaction

May cause damage to organs

Very toxic to aquatic life with long lasting effects



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Do not breathe dust, fume, gas, mist, vapors and spray

Use only outdoors or in a well-ventilated area

Wear respiratory protection

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves, protective clothing, eye protection and face protection

Avoid release to the environment

Precautionary Statements - Response

IF exposed or concerned: Call a POISON CENTER or doctor

Skin

IF ON SKIN: Wash with plenty of water and soap

If skin irritation or rash occurs: Get medical advice and attention

Take off all contaminated clothing and wash it before reuse

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Immediately call a POISON CENTRE or doctor

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Rinse mouth

Spill

Collect spillage

Precautionary Statements - Storage



SAFETY DATA SHEET

TRC-P838843-25MG - Prothiofos-D5

Revision date 12-Jan-2024

Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant

Other information

Very toxic to aquatic life.

3. Composition/information on ingredients

Substance

Formula C₁₁H₁₀D₅Cl₂O₂PS₂

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Prothiofos-D5	-	90 - 100%	-	

Additional information

This product contains a stable isotope

4. First-aid measures

Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Inhalation

If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. IF exposed or concerned: Get medical advice/attention.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a doctor.

Skin contact

Wash with soap and water. May cause an allergic skin reaction. Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a doctor.

Ingestion

Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a doctor or poison control centre immediately.

Self-protection of the first aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe vapour or mist. Do



SAFETY DATA SHEET

TRC-P838843-25MG - Prothiofos-D5

Revision date 12-Jan-2024

not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms Coughing and/ or wheezing. Difficulty in breathing. Itching. Rashes. Hives.

Indication of any immediate medical attention and special treatment needed

Note to doctors May cause sensitisation in susceptible persons. Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical Product is or contains a sensitiser. May cause sensitisation by skin contact.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Do not breathe vapour or mist. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other information Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.



SAFETY DATA SHEET

TRC-P838843-25MG - Prothiofos-D5

Revision date 12-Jan-2024

Methods for cleaning up Pick up and transfer to properly labelled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not breathe vapour or mist. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up. Please refer to the manufacturer's certificate for specific storage and transport temperature conditions. Store only in the original receptacle unless other advice is given on the CoA.

8. Exposure controls/personal protection

Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves. The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.

Skin and body protection Wear suitable protective clothing.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.



SAFETY DATA SHEET

TRC-P838843-25MG - Prothiofos-D5

Revision date 12-Jan-2024

Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water.
General hygiene considerations	Do not breathe vapour or mist. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Wear suitable gloves and eye/face protection.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	colourless
Odour	Slight
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapour pressure	No data available	None known
Relative vapour density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other information

Explosive properties	No information available.
Oxidising properties	No information available.
Softening point	No information available
Molecular weight	350.26
VOC content	No information available
Liquid Density	No information available
Bulk density	No information available



SAFETY DATA SHEET

TRC-P838843-25MG - Prothiofos-D5

Revision date 12-Jan-2024

10. Stability and reactivity

Reactivity

No information available.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Excessive heat.

Incompatible materials

None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. Fatal if inhaled. (based on components).
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	May cause sensitisation by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Harmful if swallowed. (based on components).

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Coughing and/ or wheezing. Difficulty in breathing. Itching. Rashes. Hives.
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Acute toxicity

Numerical measures of toxicity

No information available



SAFETY DATA SHEET

TRC-P838843-25MG - Prothiofos-D5

Revision date 12-Jan-2024

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). May cause damage to organs if swallowed.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. Ecological information

Ecotoxicity	Very toxic to aquatic life with long lasting effects.
Persistence and degradability	No information available.
Bioaccumulation	No information available.
Other adverse effects	No information available.

13. Disposal considerations

Disposal methods



SAFETY DATA SHEET

TRC-P838843-25MG - Prothiofos-D5

Revision date 12-Jan-2024

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Do not reuse empty containers.

14. Transport information

TDG

UN number or ID number	UN2810
UN proper shipping name	Toxic liquid, organic, n.o.s. (Prothiofos-D5)
Transport hazard class(es)	6.1
Packing group	II
Special Provisions	16
Marine pollutant	P.
Description	UN2810, Toxic liquid, organic, n.o.s. (Prothiofos-D5), 6.1, II

DOT

UN number or ID number	UN2810
Extended proper shipping name	Toxic liquids, organic, n.o.s. (Prothiofos-D5)
Transport hazard class(es)	6.1
Packing group	II
DOT Marine Pollutant	I.
Marine pollutant	Prothiofos-D5
Description	UN2810, Toxic liquids, organic, n.o.s. (Prothiofos-D5), 6.1, II, Marine pollutant
Special Provisions	IB2, T11, TP2, TP13, TP27
Emergency Response Guide Number	153

MEX

UN number or ID number	UN2810
UN proper shipping name	Toxic liquid, organic, n.o.s. (Prothiofos-D5)
Transport hazard class(es)	6.1
Packing group	II
Description	UN2810, Toxic liquid, organic, n.o.s. (Prothiofos-D5), 6.1, II
Special Provisions	274

IATA

UN number	UN2810
UN proper shipping name	Toxic liquid, organic, n.o.s. (Prothiofos-D5)
Transport hazard class(es)	6.1
Packing group	II
ERG Code	6L
Special Provisions	A3, A4, A137
Description	UN2810, Toxic liquid, organic, n.o.s. (Prothiofos-D5), 6.1, II

UN number	UN2810
UN proper shipping name	Toxic liquid, organic, n.o.s. (Prothiofos-D5)



SAFETY DATA SHEET

TRC-P838843-25MG - Prothiofos-D5

Revision date 12-Jan-2024

Transport hazard class(es)	6.1
Packing group	II
EmS-No.	F-A, S-A
Special Provisions	274
Marine pollutant	P
Description	UN2810, Toxic liquid, organic, n.o.s. (Prothiofos-D5), 6.1, II, Marine pollutant

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA	Complies under research and development exemption or is regulated by a different government agency.
DSL/NDSL	Contact supplier for inventory compliance status.
EINECS/ELINCS	Contact supplier for inventory compliance status.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AIIC	Contact supplier for inventory compliance status.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

16. Other information

NFPA	Health hazards 4	Flammability 0	Instability 0	Special hazards -
HMIS	Health hazards 4	Flammability 0	Physical hazards 0	Personal protection X

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION



SAFETY DATA SHEET

TRC-P838843-25MG - Prothiofos-D5

Revision date 12-Jan-2024

TWA Ceiling	TWA (time-weighted average) Maximum limit value	STEL Sk*	STEL (Short Term Exposure Limit) Skin designation
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Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 12-Jan-2024

Revision Note No information available.

Disclaimer

The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/ or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied, and should be used only as a guide. LGC makes no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be held responsible for the suitability of this information for the user's intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise.

End of Safety Data Sheet