SAFETY DATA SHEET



1. Identification

Product identifier Methyl parathion

Other means of identification

Product code N-12452

Synonym(s) O,O-Dimethyl-O-(p-nitrophenyl) phosphorothioate

Recommended use For Laboratory Use Only

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Chem Service, Inc.
Address 660 Tower Lane

West Chester, PA 19380

United States

Telephone Toll Free 800-452-9994

Direct 610-692-3026

Website www.chemservice.com
E-mail info@chemservice.com

Emergency phone number Chemtrec US 800-424-9300

Chemtrec outside US +1 703-527-3887

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Acute toxicity, oral Category 2

Acute toxicity, dermal Category 3
Acute toxicity, inhalation Category 2
Serious eye damage/eye irritation Category 2B
Specific target organ toxicity, repeated Category 2

exposure

Environmental hazards Hazardous to the aquatic environment, acute Category 1

hazard

Hazardous to the aquatic environment, Category 1

long-term hazard

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Fatal if swallowed. Toxic in contact with skin. Causes eye irritation. Fatal if inhaled. May cause

damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to

aquatic life with long lasting effects.

Precautionary statement

Prevention Use only outdoors or in a well-ventilated area. Do not breathe dust/fume. Wash thoroughly after

handling. Do not eat, drink or smoke when using this product. Avoid release to the environment.

Wear protective gloves/protective clothing. Wear respiratory protection.

Response If swallowed: Immediately call a poison center/doctor. If on skin: Wash with plenty of water. If

inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment is urgent (see this label). Rinse mouth. If eye irritation persists: Get medical advice/attention. Take off immediately

all contaminated clothing and wash it before reuse. Collect spillage.

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

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Material name: Methyl parathion SDS US

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

Not applicable.

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
Methyl parathion	O,O-Dimethyl-O-(p-nitrophenyl)	298-00-0	100
	phosphorothioate		

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or

artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.

Skin contact Take off immediately all contaminated clothing. Wash off with soap and plenty of water. Call a

POISON CENTER or doctor/physician if you feel unwell. Get medical attention if irritation develops

and persists.

Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove Eye contact

contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation

develops and persists.

Ingestion Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without

advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other

proper respiratory medical device.

may cause chronic effects.

Most important symptoms/effects, acute and

delaved

Indication of immediate medical attention and special

treatment needed

General information

Provide general supportive measures and treat symptomatically. In case of shortness of breath,

give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

Exposed individuals may experience eye tearing, redness, and discomfort. Prolonged exposure

Take off immediately all contaminated clothing. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are

aware of the material(s) involved, and take precautions to protect themselves. Show this safety

data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media

Specific hazards arising from

the chemical

Special protective equipment

and precautions for firefighters

Fire-fighting

equipment/instructions

Specific methods

General fire hazards

Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

During fire, gases hazardous to health may be formed.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Use water spray to cool unopened containers.

Use standard firefighting procedures and consider the hazards of other involved materials.

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Material name: Methyl parathion SDS US

Methods and materials for containment and cleaning up

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). This product is miscible in water. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Collect spillage.

Large Spills: Wet down with water and dike for later disposal. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Minimize dust generation and accumulation. Do not breathe dust. Do not taste or swallow. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Material	Туре	Value	Form
Methyl parathion (CAS 298-00-0)	TWA	0.02 mg/m3	Inhalable fraction and vapor.
US. NIOSH: Pocket Guide to Cho	emical Hazards		
Material	Туре	Value	
Methyl parathion (CAS 298-00-0)	TWA	0.2 mg/m3	

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US - California OELs: Skin designation

Methyl parathion (CAS 298-00-0)

Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Methyl parathion (CAS 298-00-0) Skin designation applies.

US - Tennesse OELs: Skin designation

Methyl parathion (CAS 298-00-0)

Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Methyl parathion (CAS 298-00-0)

Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

Methyl parathion (CAS 298-00-0)

Can be absorbed through the skin.

Appropriate engineering

controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear eye/face protection. Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection Wear positive pressure self-contained breathing apparatus (SCBA).

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely

wash work clothing and protective equipment to remove contaminants.

Material name: Methyl parathion

9. Physical and chemical properties

Appearance

Physical state Solid.

Form Solid. Crystalline Solid

Color Colorless
Odor Not available.
Odor threshold Not available.
pH Not available.

Melting point/freezing point 95 - 96.8 °F (35 - 36 °C)
Initial boiling point and boiling 309.2 °F (154 °C) 0.136 kPa

range

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 0 kPa at 25 °C

Vapor density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) 0.06 g/l at 77°F

Partition coefficient

(n-octanol/water)

2.9

Auto-ignition temperature248 °F (120 °C)Decomposition temperatureNot available.ViscosityNot available.

Other information

Density1.358 g/ml at 20 °CMolecular formulaC8-H10-N-O5-P-SMolecular weight263.21 g/molSpecific gravity1.36 at 20 °C

10. Stability and reactivity

ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous Hazardous polymerization does not occur.

reactions

Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition

Conditions to avoid

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

IngestionFatal if swallowed.InhalationFatal if inhaled.

Skin contact Toxic in contact with skin.

Eye contact Causes eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Exposed individuals may experience eye tearing, redness, and discomfort.

Material name: Methyl parathion

Information on toxicological effects

Acute toxicity Fatal if inhaled. Fatal if swallowed. Toxic in contact with skin.

Product	Species	Test Results	
Methyl parathion (CAS 298	3-00-0)		
Acute			
Dermal			
LD50	Rabbit	300 mg/kg	
Oral			
LD50	Guinea pig	417 mg/kg	
	Rat	14 mg/kg	
Other			
LD50	Guinea pig	50 mg/kg	

^{*} Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye

Causes eye irritation.

irritation

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Methyl parathion (CAS 298-00-0) 3 Not classifiable as to carcinogenicity to humans.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicityThis product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful. May cause damage to organs through prolonged or

repeated exposure.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Product		Species	Test Results		
Methyl parathion (CAS	Methyl parathion (CAS 298-00-0)				
Aquatic					
Crustacea	EC50	Water flea (Daphnia magna)	0.0001 - 0.0002 mg/l, 48 hours		
Fish	LC50	Bluegill (Lepomis macrochirus)	1.6 mg/l, 96 hours		

^{*} Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential Not available.

Partition coefficient n-octanol / water (log Kow)

2.86

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

Material name: Methyl parathion SDS US

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material

and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international

regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

US RCRA Hazardous Waste P List: Reference

Methyl parathion (CAS 298-00-0)

P071

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

14. Transport information

DOT

UN number UN3464

UN proper shipping name

Organophosphorus compound, toxic, solid, n.o.s., MARINE POLLUTANT

Transport hazard class(es)

Class 6.1(PGI, II)

Subsidiary risk 6.1 Label(s) **Packing group**

Environmental hazards

Marine pollutant Yes

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions IB7, IP1, T6, TP33

Packaging exceptions None Packaging non bulk 211 Packaging bulk 242

IATA

UN number UN3464

UN proper shipping name Transport hazard class(es) Organophosphorus compound, solid, toxic, n.o.s.

Class 6.1(PGI, II)

Subsidiary risk ı Packing group **Environmental hazards** No. **ERG Code** 6L

Other information

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Passenger and cargo

aircraft

Cargo aircraft only

Allowed.

Allowed.

IMDG

UN number UN3464

UN proper shipping name Transport hazard class(es) ORGANOPHOSPHORUS COMPOUND, TOXIC, SOLID, N.O.S., MARINE POLLUTANT

6.1(PGI, II) Class

Subsidiary risk **Packing group** ١ **Environmental hazards**

Marine pollutant Yes F-A. S-A

EmS Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to

Not applicable.

Annex II of MARPOL 73/78 and the IBC Code

13896 Version #: 01 Issue date: 07-22-2014

Material name: Methyl parathion SDS US



IATA; IMDG



Marine pollutant



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

One or more components are not listed on TSCA.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Methyl parathion (CAS 298-00-0)

Listed.

SARA 304 Emergency release notification

Methyl parathion (CAS 298-00-0)

100 LBS

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name CAS number Reportable **Threshold Threshold Threshold** quantity planning quantity planning quantity, planning quantity, lower value upper value Methyl parathion 298-00-0 100 100 lbs 10000 lbs

SARA 311/312 Hazardous Yes

chemical

SARA 313 (TRI reporting)

Chemical nameCAS number% by wt.Methyl parathion298-00-0100

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Water Act (CWA)

Hazardous substance

Section 112(r) (40 CFR

68.130)

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations

US. Massachusetts RTK - Substance List

Methyl parathion (CAS 298-00-0)

US. New Jersey Worker and Community Right-to-Know Act

Methyl parathion (CAS 298-00-0) 100 LBS

US. Pennsylvania RTK - Hazardous Substances

Methyl parathion (CAS 298-00-0)

US. Rhode Island RTK

Methyl parathion (CAS 298-00-0)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Toxic Substances Control Act (TSCA) Inventory

16. Other information, including date of preparation or last revision

Issue date 07-22-2014

Version # 01 NFPA ratings Health: 3

United States & Puerto Rico

Flammability: 0 Instability: 0

Material name: Methyl parathion

SDS US 8/9

Nο

Disclaimer

The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.

Persons not specifically and properly trained should not handle this chemical or its container. This product is furnished FOR LABORATORY USE ONLY! Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticide products, food additives or as household chemicals.

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