

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)  
Classifications according to Regulation (EC) No 1272/2008.  
Printdate 19 Apr 2023

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product name:

Parathion-methyl

### 1.1. Catalog No.:

690630

### 1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical  
uses: R&D

### 1.3. Uses advised against:

HPC Standards GmbH  
Am Wieseneck 7

04451 Cunnersdorf  
Deutschland

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Fax. +49 34291 3372-39  
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### 1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36  
This number is only available during office hours.

## 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture  
Classification according to Regulation (EC) No 1272/2008  
Flammable liquids (Category 3), H226  
Acute toxicity, Inhalation (Category 2), H330  
Acute toxicity, Oral (Category 2), H300  
Acute toxicity, Dermal (Category 3), H311  
Specific target organ toxicity - repeated exposure (Category 2), H373  
Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410 Classification according to EU Directives 67/548/EEC or 1999/45/EC  
R10  
R 5  
T+ Very toxic R26/28  
T Toxic R24  
Xn Harmful R48/22  
N Dangerous for the environment  
R50/53

### 2.2. Label elements

#### 2.2.1. Pictogram



### 2.2.2.

Signal word Danger  
Hazard statement(s)  
H226 Flammable liquid and vapour.  
H300 Fatal if swallowed.  
H311 Toxic in contact with skin.  
H330 Fatal if inhaled.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H410 Very toxic to aquatic life with long lasting effects.  
Precautionary statement(s)  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash hands thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing.  
P284 Wear respiratory protection.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
Supplemental Hazard  
Statements  
none  
2.3 Other hazards - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances  
Formula : C<sub>8</sub>H<sub>10</sub>NO<sub>5</sub>PS  
Molecular Weight : 263,21 g/mol  
CAS-No. : 298-00-0  
EC-No. : 206-050-1  
Index-No. : 015-035-00-7  
Hazardous ingredients according to Regulation (EC) No 1272/2008  
Component Classification Concentration  
Parathion - methyl  
CAS-No.  
EC-No.  
Index-No.  
298-00-0  
206-050-1  
015-035-00-7  
Flam. Liq. 3; Acute Tox. 2;  
Acute Tox. 3; STOT RE 2;  
Aquatic Acute 1; Aquatic  
Chronic 1; H226, H300 +  
H330, H311, H373, H410  
≤ 100 %  
Hazardous ingredients according to Directive 1999/45/EC  
Component Classification Concentration  
Parathion - methyl  
CAS-No.  
EC-No.  
Index-No.  
298-00-0  
206-050-1  
015-035-00-7  
T+, N, R 5 - R10 - R24 -  
R26/28 - R48/22 - R50/53  
≤ 100 %

### 3.1.1. Formula

C8H10NO5PS

**3.1.2. Molecular Weight (g/mol)**

263.21

**3.1.3. CAS-No.**

298-00-0

**4. FIRST AID MEASURES**

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

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

In case of skin contact

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

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

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

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

**5. FIRE-FIGHTING MEASURES**

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Oxides of phosphorus

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

## 6. ACCIDENTAL RELEASE MEASURES

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

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

### 6.2 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.

### 6.3 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.

### 6.4 Reference to other sections

For disposal see section 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities

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

Recommended storage temperature: 2 - 8 °C

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Components with workplace control parameters

### 8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

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

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- a) Appearance Form: solid
  - b) Odour no data available
  - c) Odour Threshold no data available
  - d) pH no data available
  - e) Melting point/freezing point  
no data available
  - f) Initial boiling point and boiling range  
119 °C at 0,1 hPa
  - g) Flash point no data available
  - h) Evaporation rate no data available
  - i) Flammability (solid, gas) no data available
  - j) Upper/lower flammability or explosive limits  
no data available
  - k) Vapour pressure < 0,001 hPa at 20 °C
  - l) Vapour density no data available
  - m) Relative density 1,360 g/cm<sup>3</sup> at 20 °C
  - n) Water solubility insoluble
  - o) Partition coefficient: noctanol/water  
log Pow: 2,8
  - p) Auto-ignition temperature  
no data available
  - q) Decomposition temperature  
no data available
  - r) Viscosity no data available
  - s) Explosive properties no data available
  - t) Oxidizing properties no data available
- ### 9.2 Other safety information
- no data available

## 10. STABILITY AND REACTIVITY

- 10.1 Reactivity  
no data available
  - 10.2 Chemical stability  
Stable under recommended storage conditions.
  - 10.3 Possibility of hazardous reactions  
no data available
  - 10.4 Conditions to avoid  
no data available
  - 10.5 Incompatible materials  
Oxidizing agents
  - 10.6 Hazardous decomposition products  
Other decomposition products - no data available
- In the event of fire: see section 5

## 11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects  
Acute toxicity  
LD50 Oral - rat - 6,01 mg/kg  
LD50 Dermal - rabbit - 300 mg/kg  
Skin corrosion/irritation

no data available  
Serious eye damage/eye irritation  
no data available  
Respiratory or skin sensitisation  
no data available  
Germ cell mutagenicity  
mouse  
lymphocyte  
Mutation in mammalian somatic cells.  
Hamster  
Lungs  
Sister chromatid exchange  
Human  
lymphocyte  
Sister chromatid exchange  
mouse  
Cytogenetic analysis  
mouse  
sperm  
rat  
Micronucleus test rat  
Cytogenetic analysis  
mouse  
Micronucleus test  
mouse  
Micronucleus test  
Carcinogenicity  
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Parathion - methyl)  
Reproductive toxicity  
Reproductive toxicity - rat - Oral Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Blood and lymphatic system (including spleen and marrow).  
Reproductive toxicity - rat - Oral  
Effects on Newborn: Weaning or lactation index (e.g., # alive at weaning per # alive at day 4). Effects on Newborn: Behavioral.  
Developmental Toxicity - rat - Intraperitoneal  
Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).  
Developmental Toxicity - rat - Oral  
Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).  
Developmental Toxicity - mouse - Intraperitoneal  
Effects on Embryo or Fetus: Fetal death. Specific Developmental Abnormalities: Craniofacial (including nose and tongue). Specific Developmental Abnormalities: Musculoskeletal system.  
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: TG0175000

## 12. ECOLOGICAL INFORMATION

12.1 Toxicity  
Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 2,2 mg/l - 96,0 h  
Toxicity to daphnia and other aquatic invertebrates  
mortality LOEC - Daphnia - 0,001 mg/l - 7 d  
mortality NOEC - Daphnia - 0,99 ug/l - 7 d  
EC50 - Daphnia magna (Water flea) - 0,14 mg/l - 48 h  
12.2 Persistence and degradability  
no data available  
12.3 Bioaccumulative potential  
Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 14 d  
- 64,1 ug/l  
Bioconcentration factor (BCF): 26.268,00  
12.4 Mobility in soil  
no data available  
12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

### 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Contaminated packaging

Dispose of as unused product.

### 14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 2811 IMDG: 2811 IATA: 2811

14.2 UN proper shipping name

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (Parathion - methyl)

IMDG: TOXIC SOLID, ORGANIC, N.O.S. (Parathion - methyl)

IATA: Toxic solid, organic, n.o.s. (Parathion - methyl)

Passenger Aircraft: Not permitted for transport

14.3 Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

14.4 Packaging group

ADR/RID: I IMDG: I IATA: I

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: yes IATA: no

14.6 Special precautions for user

no data available

### 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

## 16. OTHER INFORMATION

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. For lab use only!