

## SAFETY DATA SHEET

Version 6.2  
Revision Date 04/18/2021  
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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : 3-Methyl-1-phenyl-2-phospholene 1-oxide

Product Number : 191744  
Brand : Aldrich  
CAS-No. : 707-61-9

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Synthesis of substances

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

Company : Sigma-Aldrich Inc.  
3050 SPRUCE ST  
ST. LOUIS MO 63103  
UNITED STATES

Telephone : +1 314 771-5765  
Fax : +1 800 325-5052

**1.4 Emergency telephone**

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-  
527-3887 CHEMTREC (International) 24  
Hours/day; 7 Days/week

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Acute toxicity, Oral (Category 4), H302  
Carcinogenicity (Category 2), H351  
Short-term (acute) aquatic hazard (Category 3), H402  
Long-term (chronic) aquatic hazard (Category 3), H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 GHS Label elements, including precautionary statements**

Pictogram



Signal word

Warning

|                            |                                                                               |
|----------------------------|-------------------------------------------------------------------------------|
| Hazard statement(s)        |                                                                               |
| H302                       | Harmful if swallowed.                                                         |
| H351                       | Suspected of causing cancer.                                                  |
| H412                       | Harmful to aquatic life with long lasting effects.                            |
| Precautionary statement(s) |                                                                               |
| P201                       | Obtain special instructions before use.                                       |
| P202                       | Do not handle until all safety precautions have been read and understood.     |
| P264                       | Wash skin thoroughly after handling.                                          |
| P270                       | Do not eat, drink or smoke when using this product.                           |
| P273                       | Avoid release to the environment.                                             |
| P280                       | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P301 + P312 + P330         | IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.   |
| P308 + P313                | IF exposed or concerned: Get medical advice/ attention.                       |
| P405                       | Store locked up.                                                              |
| P501                       | Dispose of contents/ container to an approved waste disposal plant.           |

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                  |                                      |
|------------------|--------------------------------------|
| Formula          | : C <sub>11</sub> H <sub>13</sub> OP |
| Molecular weight | : 192.19 g/mol                       |
| CAS-No.          | : 707-61-9                           |

| Component                                                 | Classification                                                     | Concentration  |
|-----------------------------------------------------------|--------------------------------------------------------------------|----------------|
| <b>2,3-Dihydro-4-methyl-1-phenyl-1H-phosphole 1-oxide</b> |                                                                    |                |
|                                                           | Acute Tox. 4; Aquatic Acute 3; Aquatic Chronic 3; H302, H402, H412 | >= 70 - < 90 % |

|                        |                                                                                                                             |               |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Dichloromethane</b> |                                                                                                                             |               |
|                        | Skin Irrit. 2; Eye Irrit. 2A; Carc. 2; STOT SE 3; H315, H319, H351, H336<br>Concentration limits:<br>20 %: STOT SE 3, H336; | >= 5 - < 10 % |

For the full text of the H-Statements mentioned in this Section, see Section 16.

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## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

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

#### 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. 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

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## SECTION 5: Firefighting 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  
Oxides of phosphorus  
Hydrogen chloride gas

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

### 5.4 Further information

No data available

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## SECTION 6: Accidental release measures

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

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.  
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

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advice on safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

#### Hygiene measures

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

For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage class (TRGS 510): 10: Combustible liquids

### 7.3 Specific end use(s)

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

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with workplace control parameters

| Component       | CAS-No. | Value                                                        | Control parameters | Basis                                             |
|-----------------|---------|--------------------------------------------------------------|--------------------|---------------------------------------------------|
| Dichloromethane | 75-09-2 | TWA                                                          | 50 ppm             | USA. ACGIH Threshold Limit Values (TLV)           |
|                 | Remarks | Confirmed animal carcinogen with unknown relevance to humans |                    |                                                   |
|                 |         | Potential Occupational Carcinogen                            |                    |                                                   |
|                 |         | PEL                                                          | 25 ppm             | OSHA Specifically Regulated Chemicals/Carcinogens |
|                 |         | OSHA specifically regulated carcinogen                       |                    |                                                   |
|                 |         | STEL                                                         | 125 ppm            | OSHA Specifically Regulated Chemicals/Carcinogens |
|                 |         | OSHA specifically regulated carcinogen                       |                    |                                                   |

|  |  |      |                                  |                                                                                         |
|--|--|------|----------------------------------|-----------------------------------------------------------------------------------------|
|  |  | STEL | 125 ppm<br>435 mg/m <sup>3</sup> | California permissible exposure limits for chemical contaminants (Title 8, Article 107) |
|  |  | PEL  | 25 ppm<br>87 mg/m <sup>3</sup>   | California permissible exposure limits for chemical contaminants (Title 8, Article 107) |

Hazardous components without workplace control parameters

#### Biological occupational exposure limits

| Component       | CAS-No. | Parameters                                               | Value    | Biological specimen | Basis                                     |
|-----------------|---------|----------------------------------------------------------|----------|---------------------|-------------------------------------------|
| Dichloromethane | 75-09-2 | Dichloromethane                                          | 0.3 mg/l | Urine               | ACGIH - Biological Exposure Indices (BEI) |
|                 | Remarks | End of shift (As soon as possible after exposure ceases) |          |                     |                                           |

## 8.2 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

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                 |                                         |
|-------------------------------------------------|-----------------------------------------|
| a) Appearance                                   | Form: clear, liquid<br>Color: colorless |
| b) Odor                                         | No data available                       |
| c) Odor Threshold                               | No data available                       |
| d) pH                                           | No data available                       |
| e) Melting point/freezing point                 | No data available                       |
| f) Initial boiling point and boiling range      | 150 °C 302 °F at 0.2 hPa - lit.         |
| g) Flash point                                  | 113 °C (235 °F) - closed cup            |
| h) Evaporation rate                             | No data available                       |
| i) Flammability (solid, gas)                    | No data available                       |
| j) Upper/lower flammability or explosive limits | No data available                       |
| k) Vapor pressure                               | No data available                       |
| l) Vapor density                                | No data available                       |
| m) Relative density                             | No data available                       |
| n) Water solubility                             | No data available                       |
| o) Partition coefficient: n-octanol/water       | No data available                       |
| p) Autoignition 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

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## SECTION 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

Strong oxidizing agents

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Acute toxicity estimate Oral - 581.51 mg/kg  
(Calculation method)

Acute toxicity estimate Dermal - > 5,000 mg/kg  
(Calculation method)

LD50 Intraperitoneal - Mouse - 840 mg/kg

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

IARC: 2A - Group 2A: Probably carcinogenic to humans (Dichloromethane)

NTP: No ingredient 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 on OSHA's list of regulated carcinogens.

#### 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

**11.2 Additional Information**

RTECS: SZ6105100

Stomach - Irregularities - Based on Human Evidence

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**SECTION 12: Ecological information****12.1 Toxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**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**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life with long lasting effects.

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**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. 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.

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**SECTION 14: Transport information****DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

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**IATA**

Not dangerous goods

**Further information**

Not classified as dangerous in the meaning of transport regulations.

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**SECTION 15: Regulatory information****SARA 302 Components**

This material does not contain any components with a section 302 EHS TPQ.

**SARA 313 Components**

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

|                 | CAS-No. | Revision Date |
|-----------------|---------|---------------|
| Dichloromethane | 75-09-2 | 2007-07-01    |

**SARA 311/312 Hazards**

Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

|                                                    |                     |               |
|----------------------------------------------------|---------------------|---------------|
| 2,3-Dihydro-4-methyl-1-phenyl-1H-phosphole 1-oxide | CAS-No.<br>707-61-9 | Revision Date |
|----------------------------------------------------|---------------------|---------------|

|                 |         |            |
|-----------------|---------|------------|
| Dichloromethane | 75-09-2 | 2007-07-01 |
|-----------------|---------|------------|

|                                                    |                     |               |
|----------------------------------------------------|---------------------|---------------|
| 2,3-Dihydro-4-methyl-1-phenyl-1H-phosphole 1-oxide | CAS-No.<br>707-61-9 | Revision Date |
|----------------------------------------------------|---------------------|---------------|

|                 |         |            |
|-----------------|---------|------------|
| Dichloromethane | 75-09-2 | 2007-07-01 |
|-----------------|---------|------------|

**New Jersey Right To Know Components**

|                                                    |                     |               |
|----------------------------------------------------|---------------------|---------------|
| 2,3-Dihydro-4-methyl-1-phenyl-1H-phosphole 1-oxide | CAS-No.<br>707-61-9 | Revision Date |
|----------------------------------------------------|---------------------|---------------|

|                 |         |            |
|-----------------|---------|------------|
| Dichloromethane | 75-09-2 | 2007-07-01 |
|-----------------|---------|------------|

**California Prop. 65 Components**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

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## SECTION 16: Other information

### Further information

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