

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 09.05.2023

Version number 1

Revision: 09.05.2023

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Trade name:** Triethyl phosphate

· **Article number:** 768

· **CAS Number:**

78-40-0

· **EC number:**

201-114-5

· **Index number:**

015-013-00-7

· **Registration number** 01-2119492852-28

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

No further relevant information available.

· **Application of the substance / the mixture**

Reagent and catalyst in chemical synthesis. Solvents in paint strippers (strippers). Auxiliaries in the plastic, synthetic resin, paint, adhesive and printing ink industries. Plasticizer for resins, fibers, foils, films and plastics.

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

· **Manufacturer/Supplier:**

Möller Chemie GmbH & Co. KG

Bürgerkamp 1

D-48565 Steinfurt

Tel.: 02551/9340-0

Fax: 02551/9340-60

· **Further information obtainable from:** Product safety department

· **1.4 Emergency telephone number:**

Poison Control Center Mainz - 24 hour emergency service - Tel.: +49 (0) 6131/19240

### SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Eye Irrit. 2 H319 Causes serious eye irritation.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard statements**

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

· **Precautionary statements**

P280 Wear eye protection / face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P337+P313      *If eye irritation persists: Get medical advice/attention.*  
 P501              *Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **2.3 Other hazards**

*The substance/mixture does not contain any components that are to be classified according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 at levels of 0.1% or more have endocrine disrupting properties.*

· **Results of PBT and vPvB assessment**

· **PBT:**

*The product does not contain any substances above legal limits that meet the criteria for PBT (persistent, bioaccumulative and toxic).*

· **vPvB:**

*The product does not contain any substances above legal limits that meet the criteria for vPvB (very persistent and very bioaccumulative).*

### SECTION 3: Composition/information on ingredients

· **3.1 Substances**

· **CAS No. Description**

78-40-0 Triethyl phosphate

· **Identification number(s)**

· **EC number:** 201-114-5

· **Index number:** 015-013-00-7

### SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:** *Take affected persons out of danger area and lay down.*

· **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*

· **After skin contact:**

*Immediately wash with water and soap and rinse thoroughly.*

*Remove contaminated clothing and shoes immediately.*

*If skin irritation continues, consult a doctor.*

· **After eye contact:**

*Rinse opened eye for several minutes under running water.*

*Remove any contact lenses if possible. Rinse further.*

*Seek medical treatment.*

· **After swallowing:**

*Rinse out mouth and then drink plenty of water.*

*Call a doctor immediately.*

· **4.2 Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

· **4.3 Indication of any immediate medical attention and special treatment needed**

*No further relevant information available.*

### SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:** *CO<sub>2</sub>, powder or water spray. Fight larger fire with alcohol resistant foam.*

· **For safety reasons unsuitable extinguishing agents:** *Water with full jet*

· **5.2 Special hazards arising from the substance or mixture**

*In case of fire, the following can be released:*

*Carbon monoxide, carbon dioxide*

*phosphorus oxides*

· **5.3 Advice for firefighters** *In a fire or if heated, a pressure increase will occur and the container may burst.*

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- **Protective equipment:** Wear self-contained respiratory protective device.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Contain and absorb spillage with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal in accordance with local/national regulations.  
Dispose contaminated material as waste according to item 13.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Avoid contact with eyes and skin.
- **Information about fire - and explosion protection:** Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Store in cool, dry conditions in tightly closed containers.  
Keep away from direct sunlight and other sources of heat and ignition.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:**  
Store only in the original container.  
Keep container tightly closed.  
Protect from humidity and water.
- **Storage class:** 10
- **7.3 Specific end use(s)** Polymer preparations and compounds

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **DNELs**  
Triethyl phosphate  
workers:  
Inhalation: Long-term exposure, systemic effects: 9.9 mg/m<sup>3</sup>  
Skin: Long-term exposure, systemic effects: 2 mg/kg body weight/day  
Consumer:  
Inhalation: Long-term exposure, systemic effects: 1.74 mg/m<sup>3</sup>  
Skin: Long-term exposure, systemic effects: 1 mg/kg body weight/day  
Oral: systemic effects, long-term exposure: 1 mg/kg body weight/day  
Oral: Short-term exposure, systemic effects: 5 mg/kg body weight/day
- **PNECs**  
Fresh water: 0.632 mg/l  
Fresh water - intermittent: 9 mg/l  
Sea water: 0.0632 mg/l  
Sewage treatment plant: 298.5 mg/l  
Freshwater sediment: 5 mg/kg dry weight (TW)  
Marine sediment: 0.5 mg/kg dry weight (TW)  
Soil: 0.64 mg/kg dry weight (TW)
- **Additional information:** The lists valid during the making were used as basis.

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- **8.2 Exposure controls**
  - **Appropriate engineering controls** No further data; see item 7.
  - **Individual protection measures, such as personal protective equipment**
  - **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes and skin.  
 Immediately remove all soiled and contaminated clothing  
 Do not inhale gases / fumes / aerosols.
  - **Respiratory protection:**  
 Suitable respiratory protective device recommended.  
 Filter A/P2
  - **Hand protection**  
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  - **Material of gloves**  
 nitrile rubber  
 Polyvinyl chloride  
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
  - **Penetration time of glove material**  
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
  - **Eye/face protection**
- 

Tightly sealed goggles
- **Body protection:** Protective work clothing

### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Physical state** Fluid
- **Colour:** Colourless
- **Odour:** Mild
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** -56.4 °C
- **Boiling point or initial boiling point and boiling range** 215 °C
- **Flammability** Not applicable.
- **Lower and upper explosion limit**
- **Lower:** 1.7 Vol %
- **Upper:** 10 Vol %
- **Flash point:** 115 °C
- **Ignition temperature:** 457 °C
- **Decomposition temperature:** Not determined.
- **pH at 20 °C** 4 - 7
- **Viscosity:**
- **Kinematic viscosity at 20 °C** 1.46 mm<sup>2</sup>/s
- **Dynamic:** Not determined.
- **Solubility**
- **water at 20 °C:** 500 g/l
- **Partition coefficient n-octanol/water (log value)** 1.11 log POW

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· Vapour pressure at 25 °C:	0.5 hPa
· Density and/or relative density	
· Density at 20 °C:	1.07 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapour density	Not determined.

<b>· 9.2 Other information</b>	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Auto-ignition temperature:	Not determined.
· Explosive properties:	Product does not present an explosion hazard.
· Change in condition	
· Evaporation rate	Not determined.

· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
  - Strong oxidizing agents
  - Strong bases
- **10.6 Hazardous decomposition products:** phosphorus oxides

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity**
  - Harmful if swallowed.
- **LD/LC50 values relevant for classification:**
  - LD50/oral/rat: 1165 mg/kg
  - LD50/dermal/rabbit > 2000 mg/kg
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

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- **Serious eye damage/irritation** Low irritation possible - not required for identification.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**
- **Endocrine disrupting properties** Substance is not listed.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**
  - Fish toxicity:  
LC50/96h > 100 mg/l
  - Daphnia toxicity:  
EC50/48h > 100 mg/l
  - Algae toxicity:  
IC50/72 h > 100 mg/l
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** The product is not considered to be persistent, bioaccumulating nor toxic (PBT).
- **vPvB:** The product is not considered to be persistent or very bioaccumulative (vPvB).
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal according to local regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

- |   |      |
|---|------|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN number or ID number</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> </ul>                             | Void |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> </ul>                            | Void |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> <li>· <b>Class</b></li> </ul> | Void |

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· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	Void
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>UN "Model Regulation":</b>	Void

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**  
Substance is not listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**  
Substance is not listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS** Substance is not listed.
- **Regulation (EC) No 273/2004 on drug precursors** Substance is not listed.
- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**  
Substance is not listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product safety department
- **Contact:** Mrs. Steyer
- **Abbreviations and acronyms:**  
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
 ICAO: International Civil Aviation Organisation  
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 DNEL: Derived No-Effect Level (REACH)  
 PNEC: Predicted No-Effect Concentration (REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 Acute Tox. 4: Acute toxicity – Category 4  
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2