

# Safety data sheet

according to 1907/2006/EC, Article 31

Revision: 10.11.2010

Printing date 10.11.2010

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

**Product identifier**  
**Trade name** Trihexyl phosphate  
**Stock number:** 16801  
**CAS Number:** 2528-39-4  
**EINECS Number:** 219-774-8  
**Relevant identified uses of the substance or mixture and uses advised against**  
**Sector of Use** SU24 Scientific research and development  
**Details of the supplier of the safety data sheet**  
**Manufacturer/Supplier:** Alfa Aesar GmbH & Co.KG  
Benzstrasse 3  
D-76185 Karlsruhe / Germany  
**Informing department:** Product safety department.  
**Emergency telephone number:** Giftnotruf Universität Mainz / Poison Information Center Mainz  
www.giftinfo.uni-mainz.de Telefon: +49(0)6131/19240

E-mail: gcat@matthey.com  
www.alfa-chemcat.com

## 2 Hazards identification

**Classification of the substance or mixture**  
**Classification according to Regulation (EC) No 1272/2008**



Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
STOT SE 3 H335 May cause respiratory irritation.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

**Label elements**  
**Labelling according to Regulation (EC) No 1272/2008**  
**Hazard pictograms**

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



GHS07

Warning

**Signal word**

**Hazard-determining components of labelling:**  
**Hazard statements**

Void  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P321 Specific treatment (see on this label).  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Precautionary statements**

**Other hazards**  
**Results of PBT and vPvB assessment**  
**PBT:**  
**vPvB:**

Not applicable.  
Not applicable.

## 3 Composition/information on ingredients

**Chemical characterization: Substances**  
**Designation: (CAS#)** Trihexyl phosphate (CAS# 2528-39-4)  
**Identification number(s):**  
**EINECS Number:** 219-774-8

## 4 First aid measures

**Description of first aid measures**  
**After inhalation** Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
**After skin contact** Seek immediate medical advice.  
Instantly wash with water and soap and rinse thoroughly.  
**After eye contact** Seek immediate medical advice.  
Rinse opened eye for several minutes under running water. Then consult doctor.  
**After swallowing** Seek immediate medical advice.

## 5 Firefighting measures

**Extinguishing media**  
**Suitable extinguishing agents** CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.  
**Special hazards arising from the substance or mixture** Can be released in case of fire:  
Carbon monoxide and carbon dioxide  
Phosphorus oxides  
**Advice for firefighters**  
**Protective equipment:** Wear self-contained breathing apparatus.  
Wear full protective suit.

## 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Do not allow material to be released to the environment without proper governmental permits.  
**Environmental precautions:**  
**Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.  
**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 information on disposal.

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.11.2010

Revision: 10.11.2010

Trade name **Trihexyl phosphate**

(Contd. of page 1)

## 7 Handling and storage

<b>Handling</b>	
<b>Precautions for safe handling</b>	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace.
<b>Information about protection against explosions and fires:</b>	No special measures required.
<b>Conditions for safe storage, including any incompatibilities</b>	
<b>Storage</b>	
<b>Requirements to be met by storerooms and containers:</b>	No special requirements.
<b>Information about storage in one common storage facility:</b>	Do not store together with oxidizing and acidic materials.
<b>Further information about storage conditions:</b>	Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.

## 8 Exposure controls/personal protection

<b>Additional information about design of technical systems:</b>	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
<b>Control parameters</b>	
<b>Components with critical values that require monitoring at the workplace:</b>	Not required.
<b>Additional information:</b>	No data
<b>Exposure controls</b>	
<b>Personal protective equipment</b>	
<b>General protective and hygienic measures</b>	The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin.
<b>Breathing equipment:</b>	Use breathing protection with high concentrations.
<b>Eye protection:</b>	Safety glasses Face protection
<b>Body protection:</b>	Protective work clothing.

## 9 Physical and chemical properties

<b>Information on basic physical and chemical properties</b>	
<b>General Information</b>	
<b>Appearance:</b>	
<b>Form:</b>	Liquid
<b>Smell:</b>	Not determined
<b>Odour threshold:</b>	Not determined.
<b>pH-value:</b>	Not determined.
<b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Not determined
<b>Boiling point/Boiling range:</b>	Not determined
<b>Sublimation temperature / start:</b>	Not determined
<b>Flash point:</b>	Not determined
<b>Ignition temperature:</b>	Not determined
<b>Decomposition temperature:</b>	Not determined
<b>Self-inflammability:</b>	Not determined.
<b>Danger of explosion:</b>	Product is not explosive.
<b>Critical values for explosion:</b>	
<b>Lower:</b>	Not determined
<b>Upper:</b>	Not determined
<b>Steam pressure:</b>	Not determined
<b>Density</b>	Not determined
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Segregation coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>dynamic:</b>	Not determined.
<b>kinematic:</b>	Not determined.
<b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

<b>Reactivity</b>	
<b>Chemical stability</b>	
<b>Thermal decomposition / conditions to be avoided:</b>	No decomposition if used and stored according to specifications.
<b>Possibility of hazardous reactions</b>	No dangerous reactions known
<b>Incompatible materials:</b>	Acids Oxidizing agents
<b>Hazardous decomposition products:</b>	Carbon monoxide and carbon dioxide Phosphorus oxides (e.g. P <sub>2</sub> O <sub>5</sub> )

## 11 Toxicological information

<b>Information on toxicological effects</b>	
<b>Acute toxicity:</b>	
<b>Primary irritant effect:</b>	
<b>on the skin:</b>	Irritant for skin and mucous membranes.
<b>on the eye:</b>	Irritant effect.
<b>Sensitization:</b>	No sensitizing effect known.

(Contd. on page 3)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.11.2010

Revision: 10.11.2010

Trade name **Trihexyl phosphate****Additional toxicological information:**

(Contd. of page 2)

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.  
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

**12 Ecological information**

<b>Toxicity</b> <b>Acquatic toxicity:</b> <b>Persistence and degradability</b> <b>Behaviour in environmental systems:</b> <b>Bioaccumulative potential</b> <b>Mobility in soil</b> <b>Additional ecological information:</b> <b>General notes:</b>	<p>No further relevant information available.</p> <p>No further relevant information available.</p> <p>No further relevant information available.</p> <p>No further relevant information available.</p> <p>Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Do not allow material to be released to the environment without proper governmental permits.</p>
<b>Results of PBT and vPvB assessment</b> <b>PBT:</b> <b>vPvB:</b> <b>Other adverse effects</b>	<p>Not applicable.</p> <p>Not applicable.</p> <p>No further relevant information available.</p>

**13 Disposal considerations**

<b>Waste treatment methods</b> <b>Recommendation</b>	<p>Consult state, local or national regulations for proper disposal. Hand over to disposers of hazardous waste. Must be specially treated under adherence to official regulations.</p>
<b>Uncleaned packagings:</b> <b>Recommendation:</b>	<p>Disposal must be made according to official regulations.</p>

**14 Transport information**

<b>Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)</b> <b>ADR/RID-GGVS/E Class:</b>	<p>None</p>
<b>Maritime transport IMDG/GGVSea:</b> <b>IMDG/GGVSea Class:</b> <b>Marine pollutant:</b>	<p>None</p> <p>No</p>
<b>Air transport ICAO-TI and IATA-DGR:</b> <b>ICAO/IATA Class:</b>	<p>None</p>
<b>Special precautions for user</b> <b>Transport/Additional information:</b> <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	<p>Not applicable.</p> <p>Not dangerous according to the above specifications.</p> <p>Not applicable.</p>

**15 Regulatory information**

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

**National regulations**

<b>Information about limitation of use:</b>	<p>Employment restrictions concerning young persons must be observed. For use only by technically qualified individuals.</p>
<b>Water hazard class:</b>	<p>Water hazard class 1 (Self-assessment): slightly hazardous for water.</p>
<b>Chemical safety assessment:</b>	<p>A Chemical Safety Assessment has not been carried out.</p>

**16 Other information**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

**Department issuing data specification sheet:** Health, Safety and Environmental Department.

**Contact:** Ryan P. Wilson

**Abbreviations and acronyms:** ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized 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)