

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name **Terephthalic acid**  
 Stock number: AT2527, L04139  
 CAS Number: 100-21-0  
 EC number: 202-830-0

**1.2 Relevant identified uses of the substance**

or mixture and uses advised against. No further relevant information available.  
 Identified use: SU24 Scientific research and development

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

Manufacturer/Supplier: Alfa Aesar GmbH & Co.KG  
 A Johnson Matthey Company  
 Zeppelinstr. 7b  
 76185 Karlsruhe / Germany  
 Tel: +49 (0) 721 84007 280  
 Fax: +49 (0) 721 84007 300  
 Email: tech@alfa.com  
 www.alfa.com

**Informing department:**

Product safety Tel + +049 (0) 7275 988687-0  
 Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)  
 Poison Information Center Mainz  
 www.giftinfo.uni-mainz.de Telephone: +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

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**

X Xi; Irritant

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

**Information concerning particular hazards**

for human and environment: Not applicable

Other hazards that do not result in classification

No information known.

**2.2 Label elements**

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Hazard statements

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

GHS07

Warning

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****2.3 Other hazards**

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

CAS# Designation: 100-21-0 Terephthalic acid

Identification number(s):

EC number: 202-830-0

**SECTION 4: First aid measures****4.1 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 medical treatment.

**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>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.**5.2 Special hazards arising from the substance or mixture**If this product is involved in a fire, the following can be released:  
Carbon monoxide and carbon dioxide**5.3 Advice for firefighters**

Protective equipment:

Wear self-contained breathing apparatus.  
Wear full protective suit.**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation**6.2 Environmental precautions:**

Do not allow material to be released to the environment without proper governmental permits.

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**6.3 Methods and material for containment and cleaning up:****Prevention of secondary hazards:****6.4 Reference to other sections**

Do not allow product to reach sewage system or water bodies.  
Do not allow to enter the ground/soil.

Ensure adequate ventilation.  
No special measures required.  
See Section 7 for information on safe handling  
See section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Keep containers tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Ensure good ventilation/exhaustion at the workplace.

**Information about protection against explosions and fires:**

No information known.

**7.2 Conditions for safe storage, including any incompatibilities****Storage Requirements to be met by storerooms and containers:**

No special requirements.

**Information about storage in one common storage facility:**

Store away from oxidizing agents.

**Further information about storage conditions:**

Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.  
No further relevant information available.

**7.3 Specific end use(s)****SECTION 8: Exposure controls/personal protection****Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**8.1 Control parameters****Components with critical values that require monitoring at the workplace:****100-21-0 Terephthalic acid (100,0%)**

MAK (Germany) 0,1E mg/m<sup>3</sup>

TLV (USA) 10 mg/m<sup>3</sup>

**Additional information:**

No data

**8.2 Exposure controls****Personal protective equipment****General protective and hygienic measures**

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.  
Maintain an ergonomically appropriate working environment.

**Breathing equipment:****Protection of hands:**

Use breathing protection with high concentrations.  
Check protective gloves prior to each use for their proper condition.  
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.

**Material of gloves****Penetration time of glove material****Eye protection:****Body protection:**

Impervious gloves  
Not determined  
Safety glasses  
Face protection  
Protective work clothing.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information****Appearance:**

Form: Crystalline powder

Colour: White

Smell: Odourless

Odour threshold: Not determined.

pH-value: Not applicable.

**Change in condition**

Melting point/Melting range: 402 °C (subl)

Boiling point/Boiling range: Not determined

Sublimation temperature / start: Not determined

Flash point: 260 °C

Inflammability (solid, gaseous): Not determined.

Ignition temperature: 496 °C

Decomposition temperature: Not determined

Self-inflammability: Not determined.

**Critical values for explosion:**

Lower: Not determined

Upper: Not determined

Steam pressure: Not applicable.

Density at 20 °C: 1,51 g/cm<sup>3</sup>

Relative density: Not determined.

Vapour density: Not applicable.

Evaporation rate: Not applicable.

**Solubility in / Miscibility with**

Water: Insoluble

Partition coefficient (n-octanol/water): Not determined.

**Viscosity:**

dynamic: Not applicable.

kinematic: Not applicable.

**9.2 Other information** No further relevant information available.

**SECTION 10: Stability and reactivity****10.1 Reactivity**

No information known.

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DE/E

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

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| <b>10.2 Chemical stability</b><br><b>Thermal decomposition / conditions to be avoided:</b> | Stable under recommended storage conditions.                     | (Contd. of page 2) |
| <b>10.3 Possibility of hazardous reactions</b>   | No decomposition if used and stored according to specifications. |                    |
| <b>10.5 Incompatible materials:</b>  | Reacts with strong oxidizing agents<br>Oxidizing agents          |                    |
| <b>10.6 Hazardous decomposition products:</b>  | Carbon monoxide and carbon dioxide                               |                    |

**SECTION 11: Toxicological information**

|  |  |
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| <b>11.1 Information on toxicological effects</b><br><b>Acute toxicity:</b> | The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.  |
| <b>LD/LC50 values that are relevant for classification:</b>                | No data  |
| <b>Skin irritation or corrosion:</b>                                       | Causes skin irritation.  |
| <b>Eye irritation or corrosion:</b>  | Causes serious eye irritation.   |
| <b>Sensitization:</b>  | No sensitizing effect known.   |
| <b>Germ cell mutagenicity:</b>   | No effects known.  |
| <b>Carcinogenicity:</b>  | The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this product.   |
| <b>Reproductive toxicity:</b>  | The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for components in this product.  |
| <b>Specific target organ system toxicity - repeated exposure:</b>          | No effects known.  |
| <b>Specific target organ system toxicity - single exposure:</b>            | May cause respiratory irritation.  |
| <b>Aspiration hazard:</b>  | No effects known.  |
| <b>Additional toxicological information:</b>                               | To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.<br>No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. |

**SECTION 12: Ecological information**

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| <b>12.1 Toxicity</b>                           | No further relevant information available.   |
| <b>Aquatic toxicity:</b>                       | No further relevant information available.   |
| <b>12.2 Persistence and degradability</b>      | No further relevant information available.   |
| <b>12.3 Bioaccumulative potential</b>          | No further relevant information available.   |
| <b>12.4 Mobility in soil</b>                   | No further relevant information available.   |
| <b>Additional ecological information:</b>      |  |
| <b>General notes:</b>                          | Do not allow material to be released to the environment without proper governmental permits.<br>Generally not hazardous for water.<br>Avoid transfer into the environment. |
| <b>12.5 Results of PBT and vPvB assessment</b> |  |
| <b>PBT:</b>                                    | Not applicable.  |
| <b>vPvB:</b>                                   | Not applicable.  |
| <b>12.6 Other adverse effects</b>              | No further relevant information available.   |

**SECTION 13: Disposal considerations**

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|--|---|
| <b>13.1 Waste treatment methods</b><br><b>Recommendation</b> | Hand over to disposers of hazardous waste.<br>Must be specially treated under adherence to official regulations.<br>Consult state, local or national regulations for proper disposal. |
| <b>Uncleaned packagings:</b><br><b>Recommendation:</b>       | Disposal must be made according to official regulations.  |

**SECTION 14: Transport information**

|   |                 |
|---|-----------------|
| <b>UN-Number</b><br><b>ADR, ADN, IMDG, IATA</b>                                       | Not applicable  |
| <b>14.2 UN proper shipping name</b><br><b>ADR, ADN, IMDG, IATA</b>                    | Not applicable  |
| <b>14.3 Transport hazard class(es)</b><br><b>ADR, ADN, IMDG, IATA</b><br><b>Class</b> | Not applicable  |
| <b>Packing group</b><br><b>ADR, IMDG, IATA</b>  | Not applicable  |
| <b>14.5 Environmental hazards:</b>  | Not applicable. |
| <b>14.6 Special precautions for user</b>  | Not applicable. |
| <b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>   | Not applicable. |
| <b>UN "Model Regulation":</b>   | -               |

**SECTION 15: Regulatory information**

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| <b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b><br><b>Australian Inventory of Chemical Substances</b> | Substance is listed.   |
| <b>Standard for the Uniform Scheduling of Drugs and Poisons</b>  | Substance is not listed.   |
| <b>National regulations</b>  |  |
| <b>Information about limitation of use:</b>  | Employment restrictions concerning young persons must be observed.<br>For use only by technically qualified individuals. |
| <b>Water hazard class:</b>   | Generally not hazardous for water.   |
| <b>Other regulations, limitations and prohibitive regulations</b>  |  |
| <b>ELINCS (European List of Notified Chemical Substances)</b>  | Substance is not listed.   |
| <b>Substances of very high concern (SVHC) according to REACH, Article 57</b>   | Substance is not listed.   |
| <b>REACH - Pre-registered substances</b>   | Substance is listed.   |
| <b>15.2 Chemical safety assessment:</b>  | A Chemical Safety Assessment has not been carried out.   |

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**SECTION 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.

**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)  
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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent

DE/E