

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Revision: 12.08.2010

Printing date 12.08.2010

**1 Identification of substance****Product details**

Trade name

**3,4-Difluoro-DL-phenylalanine**

Stock number:

H32276

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG  
Benzstrasse 3  
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com  
www.alfa-chemcat.com

Informing department:

Product safety department.

Emergency information:

Giftnotruf Universität Mainz / Poison Information Center Mainz  
www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240**2 Hazards identification**

Hazard designation:

void

Information pertaining to particular dangers

Not applicable

GHS label elements

Void

**3 Composition/information on ingredients**

Chemical characterization:

Designation: (CAS#)

3,4-Difluoro-DL-phenylalanine (CAS# 32133-36-1)

**4 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.

**5 Fire fighting measures**

Suitable extinguishing agents

CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fire with alcohol-resistant foam.

Special hazards caused by the material, its products of combustion or flue gases:

Can be released in case of fire:  
Carbon monoxide and carbon dioxide  
Nitrogen oxides (NO<sub>x</sub>)  
Hydrogen fluoride (HF)

Protective equipment:

Wear self-contained breathing apparatus.  
Wear full protective suit.**6 Accidental release measures**

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

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

Measures for cleaning/collecting:

Collect mechanically.

Additional information:

See Section 7 for information on safe handling  
See section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.**7 Handling and storage**

Handling

Information for safe handling:

Keep containers tightly sealed.  
Store in cool, dry place in tightly closed containers.  
No special precautions necessary if used correctly.

Information about protection against explosions and fires:

No special measures required.

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.**8 Exposure controls and 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.

Components with critical values that require monitoring at the workplace:

Not required.

Additional information:

No data

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.  
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.

Breathing equipment:

Protection of hands:

Material of gloves

Impervious gloves

Penetration time of glove material

Not determined

Eye protection:

Safety glasses

(Contd. on page 2)  
GB

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<b>Body protection:</b>	Protective work clothing.	(Contd. of page 1)
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**9 Physical and chemical properties:**

<b>General Information</b>		
<b>Form:</b>	Solid.	
<b>Smell:</b>	Not determined	
<b>Change in condition</b>		
<b>Melting point/Melting range:</b>	237-240°C	
<b>Boiling point/Boiling range:</b>	Not determined	
<b>Sublimation temperature / start:</b>	Not determined	
<b>Ignition temperature:</b>	Not determined	
<b>Decomposition temperature:</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	

**10 Stability and reactivity**

<b>Thermal decomposition / conditions to be avoided:</b>	No decomposition if used and stored according to specifications.
<b>Materials to be avoided:</b>	Oxidizing agents
<b>Dangerous reactions:</b>	No dangerous reactions known
<b>Dangerous products of decomposition:</b>	Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Hydrogen fluoride

**11 Toxicological information**

<b>Acute toxicity:</b>	
<b>Primary irritant effect:</b>	
<b>on the skin:</b>	May cause irritation
<b>on the eye:</b>	May cause irritation
<b>Sensitization:</b>	No sensitizing effect known.
<b>Additional toxicological information:</b>	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>Additional ecological information:</b>	
<b>General notes:</b>	Do not allow material to be released to the environment without proper governmental permits.

**13 Disposal considerations**

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

**14 Transport information**

<b>Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)</b>	
<b>ADR/RID-GGVS/E Class:</b>	None
<b>Maritime transport IMDG/GGVSea:</b>	
<b>IMDG/GGVSea Class:</b>	None
<b>Marine pollutant:</b>	No
<b>Air transport ICAO-TI and IATA-DGR:</b>	
<b>ICAO/IATA Class:</b>	None
<b>Transport/Additional information:</b>	Not dangerous according to the above specifications.

**15 Regulatory information**

<b>Designation according to EC guidelines:</b>	Observe the normal safety regulations when handling chemicals The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).
<b>National regulations</b>	
<b>Information about limitation of use:</b>	For use only by technically qualified individuals.
<b>Other regulations, limitations and prohibitive regulations</b>	Although this chemical may sometimes be used as a food or drug or cosmetic, our products are not approved or suitable for such use or for human consumption.

**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.	
<b>Department issuing data specification sheet:</b>	Health, Safety and Environmental Department.
<b>Contact:</b>	Zachariah Holt

(Contd. on page 3)  
GB

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(Contd. of page 2)

**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  
CAS: Chemical Abstracts Service (division of the American Chemical Society)

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