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1 Identification

Product identifier

Product name: 3,5-Difluoro-D-phenylalanine

Stock number: H27007

**CAS Number:** 266360-63-8

Relevant identified uses of the substance or mixture and uses advised against. Identified use: SU24 Scientific research and development

Details of the supplier of the safety data sheet

Manufacturer/Supplier: Alfa Aesar

Alla Aesai Thermo Fisher Scientific Chemicals, Inc. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660 Fax: 800-322-4757 Email: tech@alfa.com

www.alfa.com Information Department: Health, Safety and Environmental Department

Emergency telephone number: Call Carechem 24 at +44 (0) 1865 407333 During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789.

### 2 Hazard(s) identification

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)



Acute Tox. 4 H302 Harmful if swallowed.

Hazards not otherwise classified No information known.

GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms



GHS07

Signal word Warning Hazard statements

H302 Harmful if swallowed.

Precautionary statements
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product. P264 P270 P330

P330 Rinse mouth.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS classification Not controlled

Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System)



Health (acute effects) = 2

| Flammability = 1
| Physical Hazard = 1

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable. vPvB: Not applicable.

## 3 Composition/information on ingredients

Chemical characterization: Substances

CAS# Description: 266360-63-8 3,5-Difluoro-D-phenylalanine

#### 4 First-aid measures

Description of first aid measures

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice.

After skin contact

Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.

After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing Seek medical treatment.

Information for doctor

Most important symptoms and effects, both acute and delayed Harmful if swallowed.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

# 5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. 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

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Hydrogen fluoride (HF)
Nitrogen oxides (NOx)
Advice for firefighters
Protective equipment:
Wear self-contained respirator.
Wear fully protective impervious suit.

# 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

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

Methods and material for containment and cleaning up: Dispose of contaminated material as waste according to section 13.

Prevention of secondary hazards: No special measures required.

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.

#### 7 Handling and storage

Handling Precautions for safe handling

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

Information about protection against explosions and fires: No information known.

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles: 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. **Specific end use(s)** No further relevant information available.

### 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.

Control parameters

Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information: No data

Exposure controls

Personal protective equipment
General protective and hygienic measures
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Meintain an expensionally contaminated clothing and the contaminated clothing immediately.

Not applicable.

Not determined

Wash Haintain an ergonomically appropriate working environment.

Breathing equipment: Use suitable respirator when high concentrations are present.

Recommended filter device for short term use:

Use a respirator with type P100 (USA) or P3 (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if airpurifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.

Protection of hands:

Protection of hands:
Impervious gloves
Check protective gloves prior to each use for their proper condition.
The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.
Penetration time of glove material (in minutes) Not determined
Eye protection: Safety glasses
Body protection: Protective work clothing.

### 9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance: Form: Color: Powder White Odor: Not determined Odor threshold: Not determined

Change in condition

pH-value:

Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Not determined Not determined Not determined

Flash point: Not applicable Not determined. Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Not determined Not determined Auto igniting:

Danger of explosion: Explosion limits:

Product does not present an explosion hazard.

Lower: Not determined Upper: Not determined Vapor pressure: Density: Not applicable. Not determined

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Relative density Vapor density Not determined Not applicable. Evaporation rate Not applicable. Solubility in / Miscibility with Water: Not determined

Partition coefficient (n-octanol/water): Not determined. Viscosity: dynamic. Not applicable. kinematic:

Not applicable. No further relevant information available. Other information

#### 10 Stability and reactivity

Reactivity No information known.

Chemical stability Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications.

Possibility of hazardous reactions Reacts with strong oxidizing agents

Conditions to avoid No further relevant information available.

Incompatible materials: Oxidizing agents Hazardous decomposition products:

Carbon monoxide and carbon dioxide Nitrogen oxides

### 11 Toxicological information

Hydrogen fluoride

Information on toxicological effects Acute toxicity: Harmful if swallowed. LD/LC50 values that are relevant for classification: No data

Skin irritation or corrosion: May cause irritation Eye irritation or corrosion: May cause irritation Sensitization: No sensitizing effects known.

Germ cell mutagenicity: No effects known.

Germ cen mutagenicity: No effects known.

Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

Reproductive toxicity: No effects known.

Specific target organ system toxicity - repeated exposure: No effects known.

Specific target organ system toxicity - single exposure: No effects known.

Aspiration hazard: No effects known.

Subacute to chronic toxicity: No effects known.

Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Carcinogenic categories

OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

# 12 Ecological information

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

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

Do not allow undiluted product or large quantities to reach ground water, water course or sewage system. Avoid transfer into the environment.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.
Other adverse effects No further relevant information available.

# 13 Disposal considerations

Waste treatment methods

Recommendation Consult state, local or national regulations to ensure proper disposal.

Recommendation: Disposal must be made according to official regulations.

# 14 Transport information

UN-Number DOT, ADN, IMDG, IATA Not applicable

UN proper shipping name DOT, ADN, IMDG, IATA Transport hazard class(es)

DOT, ADR, ADN, IMDG, IATA

Class Not applicable

Packing group DOT, IMDG, IATA

Not applicable

Environmental hazards: Not applicable. Special precautions for user Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Transport/Additional information:

DOT

Marine Pollutant (DOT):

No

Not applicable

UN "Model Regulation":

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# 15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms



Signal word Warning Hazard statements
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Do not eat, drink or smoke when using this product.
P330 Rinse mouth.

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

Dispose of contents/container in accordance with local/regional/national/international regulations.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations
This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only. This product must be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes.
This product is not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).

SARA Section 313 (specific toxic chemical listings) Substance is not listed.
California Proposition 65
Prop 65 - Chemicals known to cause cancer Substance is not listed.
Prop 65 - Developmental toxicity Substance is not listed.
Prop 65 - Developmental toxicity, female Substance is not listed.
Prop 65 - Developmental toxicity, male Substance is not listed.
Information about limitation of use: For use only by technically qualified individuals.
Other regulations, limitations and prohibitive regulations
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed.
The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.
Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the us Department issuing SDS: Global Marketing Department Date of preparation / last revision 06/09/2016 / 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) DOT: US Department of Transportation

CAS: Chemical Abstracts Service (division of the American Chemical Society) HMMS: Hazardous Materials Information System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent

LD50: Lethal concentration, 50 percent vPvB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA)

NTP: National Toxicology Program (USA)

ARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

USA