



	Revisio	on date 07/22/2016
1	1 Identification Product identifier Product name: 2,5-Dichloro-D-phenylalanine Stock number: H66773 CAS Number: 718596-54-4 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 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	n date 07/22/2016
2	Information Department: Health, Safety and Environmental Department Emergency telephone number: During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928- 2 Hazard(s) identification Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS) The substance is not classified as hazardous according to 29 CFR 1910 (OSHA GHS).	0789.
	Hazards not otherwise classified No information known. Label elements GHS label elements Not applicable Hazard pictograms Not applicable Signal word Not applicable Hazard statements Not applicable WHMIS classification Not controlled Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) HEALTH Health (acute effects) = 1 Flammability = 1 Physical Hazard = 1 Other hazards Results of PBT and vPvB assessment PBT: Not applicable.	
	vPvB: Not applicable.	
3	3 Composition/information on ingredients Chemical characterization: Substances CAS# Description: 718596-54-4 2,5-Dichloro-D-phenylalanine	
4	<ul> <li>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 No further relevant information available.             Indication of any immediate medical attention and special treatment needed No further relevant information available.</li></ul>	
5	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 Nitrogen oxides (NOx) Hydrogen chloride (HCI) Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.	
6	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 product to reach sewage system or any water course. Methods and material for containment and cleaning up: Pick up mechanically. Prevention of secondary hazards: No special measures required. Reference to other sections See Section 7 for information on safe handling	
		(Contd. on page 2) USA

Product name: 2,5-Dichloro-D-phenylalanine

Product name. 2,5-Dicmoro-D-prieny	lalaliile				
Soo Soction & for information on porson	(Co	ontd. of page 1)			
See Section 8 for information on persona See Section 13 for disposal information.	r protection equipment.				
7 Handling and storage					
Handling and storage					
Precautions for safe handling					
Keep container tightly sealed.					
Store in cool, dry place in tightly closed of	ontainers.				
	xplosions and fires: No information known.				
Conditions for safe storage, including	any incompatibilities				
Storage Requirements to be met by storeroom	s and receptacles: No special requirements.				
Information about storage in one com	mon storage facility: Store away from oxidizing agents.				
Further information about storage conditions:					
Keep container tightly sealed. Store in cool, dry conditions in well seale	d containers				
Specific end use(s) No further relevant information available.					
8 Exposure controls/personal protection					
Additional information about design of					
	lesigned for hazardous chemicals and having an average face velocity of at least 100 feet per minute.				
Control parameters					
Components with limit values that req	uire monitoring at the workplace:				
The product does not contain any releva	nt 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 meas	ures				
The usual precautionary measures for ha Keep away from foodstuffs, beverages a	nolling chemicals should be followed.				
Keep away from foodstuffs, beverages a	nd feëd.				
Remove all soiled and contaminated clot Wash hands before breaks and at the er	ning immediately. d of work				
Maintain an ergonomically appropriate w	orking environment.				
Breathing equipment: Use suitable res	orking environment. birator when high concentrations are present. erm use:				
Recommended filter device for short t	er <b>m use:</b> PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determin	no if air-			
purifying respirators are appropriate. On	ly use equipment tested and approved under appropriate government standards.				
Protection of hands:					
Impervious gloves	for their proper condition				
The selection of suitable gloves not only	e for their proper condition. depends on the material, but also on quality.  Quality will vary from manufacturer to manufacturer.				
Eye protection: Salety glasses					
Body protection: Protective work clothing.					
9 Physical and chemical properties					
Information on basic physical and che General Information	mical properties				
Appearance:					
Form:	Powder				
Odor:	Not determined				
Odor threshold:	Not determined.				
pH-value: Change in condition	Not applicable.				
Melting point/Melting range:	Not determined				
Boiling point/Boiling range: Sublimation temperature / start:	Not determined				
Sublimation temperature / start:	Not determined				
Flammability (solid, gaseous) Ignition temperature:	Not determined. Not determined				
Decomposition temperature:	Not determined Not determined				
Auto igniting:	Not determined.				
Danger of explosion:	Not determined.				
Explosion limits:	Net also service al				
Lower: Upper:	Not determined Not determined				
Vapor pressure:	Not applicable.				
Density:	Not determined				
Relative density	Not determinable				
Vapor density Evaporation rate	Not applicable. Not applicable.				
Solubility in / Miscibility with					
Water:	Not determined				
Partition coefficient (n-octanol/water):	Not determined.				
Viscosity: dynamic:	Not applicable.				
kinematic:	Not applicable.				
Other information	No further relevant information available.				
10 Stability and reactivity					
Reactivity No information known.					

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

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Hydrogen chloride (HCI)		(Contd. of page 2)		
11 Toxicological information Information on toxicological effects Acute toxicity: No effects known. 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. Carcinogenicity: No classification data on carcinogenic properties of this mate Reproductive toxicity: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Subacute to chronic toxicity: No effects known. Subacute to chronic toxicity: No effects known. Additional toxicological information: To the best of our knowledge the acute Carcinogenic categories OSHA-Ca (Occupational Safety & Health Administration) Substance is not li	n. and chronic toxicity of this substance is not fully known.			
12 Ecological information				
Toxicity 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 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. Uncleaned packagings: 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	Not applicable			
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 Cod	e Not applicable.			
Transport/Additional information:				
DOT Marine Pollutant (DOT):	No			
UN "Model Regulation":	-			
15 Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture GHS label elements Not applicable Hazard pictograms Not applicable Hazard pictograms Not applicable Hazard statements Not applicable National regulations SafA Section 313 (specific toxic chemical listings) Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL). SAFA Section 313 (specific toxic chemical listings) Substance is not listed. Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Information about limitation of use: For use only by technically qualified individuals. Other regulations 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 restricti				
		(Contd. on page 4)		

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## Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## 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. conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the use Department issuing SDS: Global Marketing Department Date of preparation / last revision 08/01/2016 / - Abbreviations and accoryms: 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) HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent VPVB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) MTP: National Toxicology Program (USA) MARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

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USA