

Safety Data Sheet per OSHA HazCom 2012

1 Identification Product identifier Product name: 5-Phenyl-2,4-pentadienoic acid Stock number: L01004 **CAS Number:** 1552-94-9 EC number: 216-298-2 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. Inerrito Fisher Scheman C. 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: 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) ! GHS07 Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2A H319 Causes serious eye irritation. STOT SE 3 H335 May cause respiratory irritation. Hazards not otherwise classified No information known. Label elements 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 H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. Precautionary statements P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. P405 WHMIS classification D2B - Toxic material causing other toxic effects Ţ Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 1Flammàbility = 1 TIVITY 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: 1552-94-9 5-Phenyl-2,4-pentadienoic acid Identification number(s): EC number: 216-298-2 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. (Contd. on page 2)

## Product name: 5-Phenyl-2,4-pentadienoic acid (Contd. of page 1) 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 freatment 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 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: Ensure adequate ventilation. 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 Storage 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: Not required. 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. Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. 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: Powder Color: Pale yellow Not determined Odor: Odor threshold: Not determined pH-value: Not applicable. Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: 163-167 °C (325-333 °F) Not determined Not determined Not applicable Flash point: Flammability (solid, gaseous) Not determined. Ignition temperature: Not determined (Contd. on page 3)

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Product name: 5-Phenyl-2,4-pentac	dienoic acid	
		(Contd. of page 2
Decomposition temperature: Auto igniting:	Not determined Not determined.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits: Lower:	Not determined	
Upper:	Not determined	
Vapor pressure: Density:	Not applicable. Not determined	
Relative density	Not determined.	
Vapor density Evaporation rate	Not applicable. Not applicable.	
Solubility in / Miscibility with		
Water: Partition coefficient (n-octanol/wate	Insoluble r): Not determined	
Viscosity:		
dynamic: kinematic:	Not applicable. Not applicable.	
Other information	No further relevant information available.	
10 Stability and reactivity		
Reactivity No information known.		
Chemical stability Stable under recor	nmended storage conditions. <b>to be avoided:</b> Decomposition will not occur if used and stored according to specifications.	
Possibility of hazardous reactions	to be avoided: Decomposition will not occur if used and stored according to specifications. Io dangerous reactions known	
<b>Conditions to avoid</b> No further releva	nt information available.	
Incompatible materials: Oxidizing ag Hazardous decomposition products	ents : Carbon monoxide and carbon dioxide	
11 Toxicological information Information on toxicological effects		
Acute toxicity: No effects known.		
LD/LC50 values that are relevant for Skin irritation or corrosion: Causes	r <b>classification:</b> No data	
Eye irritation or corrosion: Causes s	erious eye irritation.	
Sensitization: No sensitizing effects k	nown.	
Germ cell mutagenicity: No effects k Carcinogenicity: No classification dat	a on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.	
Reproductive toxicity: No effects kno	own.	
Specific target organ system toxicit Specific target organ system toxicit	<b>y - repeated exposure:</b> No effects known. <b>y - single exposure:</b> May cause respiratory irritation.	
Aspiration hazard: No effects known.		
Subacute to chronic toxicity: No effe	ects known. : To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.	
12 Ecological information		
Toxicity Aquatic toxicity: No further relevant in	nformation available.	
Persistence and degradability No fu	rther relevant information available.	
Bioaccumulative potential No further Mobility in soil No further relevant info	r relevant information available. ormation available	
Additional ecological information:		
General notes:	the environment without proper governmental permits.	
Avoid transfer into the environment.		
Results of PBT and vPvB assessme PBT: Not applicable.	nt	
vPvB: Not applicable.		
Other adverse effects No further rele	vant information available.	
13 Disposal considerations		
Waste treatment methods	lor national regulations to onsure proper dispessel	
Uncleaned packagings:	l or national regulations to ensure proper disposal.	
Recommendation: Disposal must be	made according to official regulations.	
<b>14 Transport information</b> Not a hazardous material for transport	ation	
UN-Number		
DOT, ÎMDĞ, IATA	None	
UN proper shipping name DOT, IMDG, IATA	None	
Transport hazard class(es)		
DOT, ADR, IMDG, IATA Class	None	
Packing group DOT, IMDG, IATA		
DOT, IMDG, IATA Environmental hazards:	None Not applicable	
	Not applicable.	
Special precautions for user	Not applicable.	
	ex II of MARPOL73/78 and the IBC Code Not applicable.	
Transport/Additional information:	Not dangerous according to the above specifications.	(Contd on page )
		(Contd. on page 4

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DOT	
Marine Pollutant (DOT):	No
Regulatory information Safety, health and environmental regulations GHS label elements The product is classified a Hazard pictograms	s/legislation specific for the substance or mixture and labeled in accordance with 29 CFR 1910 (OSHA HCS)
GHS07	
P304+P340 IF INHALED: Remove perso   P405 Store locked up.   P501 Dispose of contents/contained   National regulations All components of this product are listed on the   SARA Section 313 (specific toxic chemical li Cause cancer   Prop 65 - Chemicals known to cause cancer Prop 65 - Developmental toxicity, female Substance i   Prop 65 - Developmental toxicity, female Substance of the regulations, limitations of use: For use of the conditions of restrictions according to A   Market and use must be observed.   Substance is not listed.	ective clothing/eye protection/face protection. y with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. in to fresh air and keep comfortable for breathing. er in accordance with local/regional/national/international regulations. U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory. Canadian Non-Domestic Substances List (NDSL). istings) Substance is not listed. Substance is not listed. is not listed.
<b>Chemical safety assessment</b> : A Chemical Sat <b>Other information</b> Employers should use this information only as a information to ensure proper use and protect the conformance with this Material Safety Data She	fety Assessment has not been carried out. a supplement to other information gathered by them, and should make independent judgement of suitability of this e health and safety of employees. This information is furnished without warranty, and any use of the product not set, or in combination with any other product or process, is the responsibility of the user.
Department issuing SDS: Global Marketing Do Date of preparation / last revision 11/23/2015	epartment 5 / - handises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) al Air Transport Association" (IATA) ion Organization" (ICAO)
LUSD: Lethal dose, 50 percent VPVB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygi OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) LARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)	enists (USA)