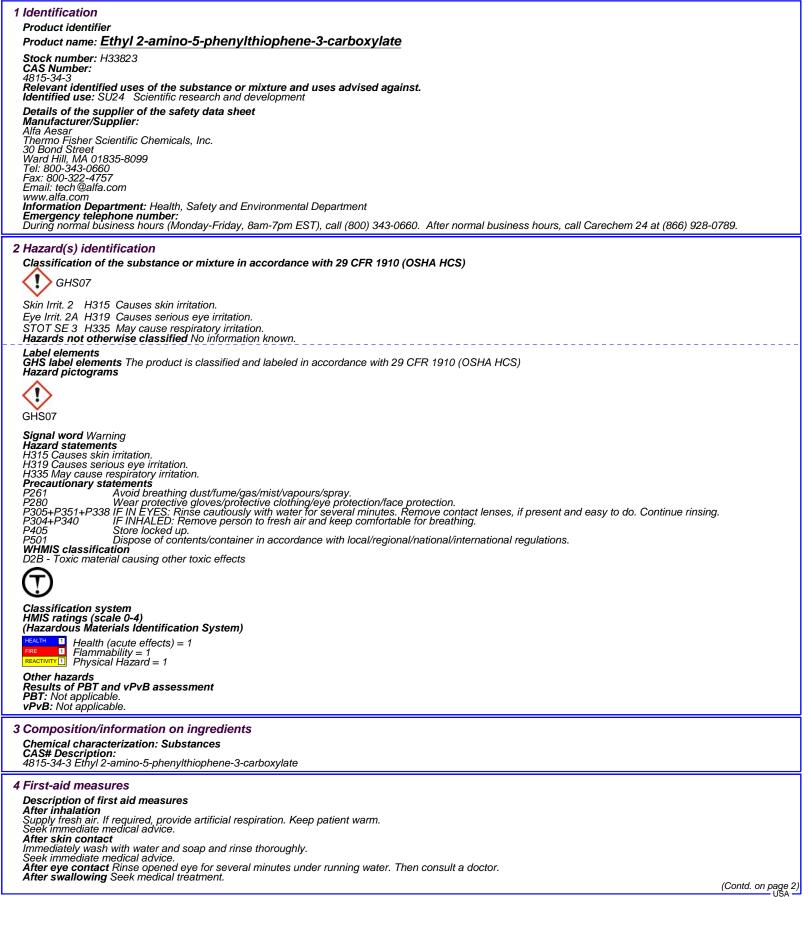


Safety Data Sheet per OSHA HazCom 2012



Product name: Ethyl 2-amino-5-phenylthiophene-3-carboxylate

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(Contd. of page 1) 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. 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 Carbon monoxide and carbon diox. Nitrogen oxides (NOx) Sulfur oxides (SOx) Possibly Hydrogen cyanide (HCN) 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: 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 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 Impervious gloves Check protective gloves prior to each use for their proper condition. The selection of suitable 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: Crystalline Color: Grey Not determined Odor: Odor threshold: Not determined pH-value: Not applicable. Change in condition Melting point/Melting range: 121-123 °C (250-253 °F) Boiling point/Boiling range: Sublimation temperature / start: Flammability (solid, gaseous) Not determined Not determined Not determined. Ignition temperature: Not determined (Contd. on page 3)

Product name: Ethyl 2-amino-5-phenylthiophene-3-carboxylate

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	(Contd. of page 2
Decomposition temperature:	Not determined
Auto igniting: Danger of explosion:	Not determined. Not determined.
Explosion limits:	
Lower: Upper:	Not determined Not determined
Vapor pressure:	Not applicable.
Density: Relative density	Not determined Not determined.
Vapor density	Not applicable.
Evaporation rate Solubility in / Miscibility with	Not applicable.
Water:	Not determined
Partition coefficient (n-octanol/water) 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 recom Thermal decomposition / conditions	mended storage conditions. to be avoided: Decomposition will not occur if used and stored according to specifications.
FOSSIDIIILY OF HAZAFOODS FEACLIONS IN) dangerous reactions known
Conditions to avoid No further relevan Incompatible materials: Oxidizing age	
Hazardous decomposition products:	
Carbon monoxide and carbon dioxide	
Sulfur oxides (SOx) Possibly Hydrogen cyanide (HCN)	
11 Toxicological information	
Information on toxicological effects	
Acute toxicity: No effects known.	
LD/LC50 values that are relevant for Skin irritation or corrosion: Causes s	classification: No data
Eve irritation or corrosion: Causes se	rious eve irritation
Sensitization: No sensitizing effects kr Germ cell mutagenicity: No effects kn	own.
Carcinogenicity: No classification data	on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
Reproductive toxicity: No effects know	vn.
Specific target organ system toxicity	 repeated exposure: No effects known. single exposure: May cause respiratory irritation.
Aspiration hazard: No effects known.	
Subacute to chronic toxicity: No effect Additional toxicological information:	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	formation available.
Persistence and degradability No furt Bioaccumulative potential No further	her relevant information available. relevant information available.
Mobility in soil No further relevant info	rmation available.
Additional ecological information: General notes:	
Do not allow material to be released to	the environment without proper governmental permits. quantities to reach ground water, water course or sewage system.
Avoid transfer into the environment.	
Results of PBT and vPvB assessmer PBT: Not applicable.	t
vPvB: Not applicable.	
Other adverse effects No further relev	
13 Disposal considerations Waste treatment methods	
Recommendation Consult state, local	or national regulations to ensure proper disposal.
Uncleaned packagings: Recommendation: Disposal must be n	
,	
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	
DOT, IMDG, IATA Environmental hazards:	Not applicable Not applicable.
Special precautions for user	Not applicable. Not applicable.
· · · ·	(II of MARPOL73/78 and the IBC Code Not applicable.

Product name: Ethyl 2-amino-5-phenylthiophene-3-carboxylate		
	(Contd. of page 3)	
Transport/Additional information:		
DOT Marine Pollutant (DOT):	No	
UN "Model Regulation":		
	ons/legislation specific for the substance or mixture d and labeled in accordance with 29 CFR 1910 (OSHA HCS)	
GHS07		
 P501 Dispose of contents/contain National regulations This product is not listed in the U.S. Environment to research and development only. This product must not be used for commercial purpoduct must not be used for commercial purpoduct must not be used for commercial product must not be used for commercial purpoduct must not be used for commercial product must not be used for commercial product must not be used for commercial purpoduct must not be used for commercial proposition 65 Prop 65 - Developmental toxicity, male Substance of S - Developmental toxicity, male Substance of Very High Concern (SVHC) a The conditions of restrictions according to market and use must be observed. Substance is not listed. 	rer Substance is not listed. Substance is not listed. Substance is not listed. bstance is not listed. is not listed. is regulations according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. o Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the guiring Authorisation for use) Substance is not listed.	
16 Other information Employers should use this information only as information to ensure proper use and protect conformance with this Material Safety Data Si	s a supplement to other information gathered by them, and should make independent judgement of suitability of this the health and safety of employees. This information is furnished without warranty, and any use of the product not in theet, or in combination with any other product or process, is the responsibility of the user.	
Department issuing SDS: Global Marketing Date of preparation / last revision 11/23/20 Abbreviations and acronyms:	Department 15 / -	
ADR: Accure duropeen sur le reinsport des marchanases de IMDE: International Maritime Code for Dangerous Goods DOT: US Department of Transport Association (ATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American (HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information Syster LC50: Lethal concentration, 50 percent	archandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) fangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) Chemical Society) m (Canada) lygienists (USA)	
LD50: Lethal dose, 50 percent ' vPvB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hi OSHA: Occupational Safety and Health Administration (USA	ygienists (USA) a)	

OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)