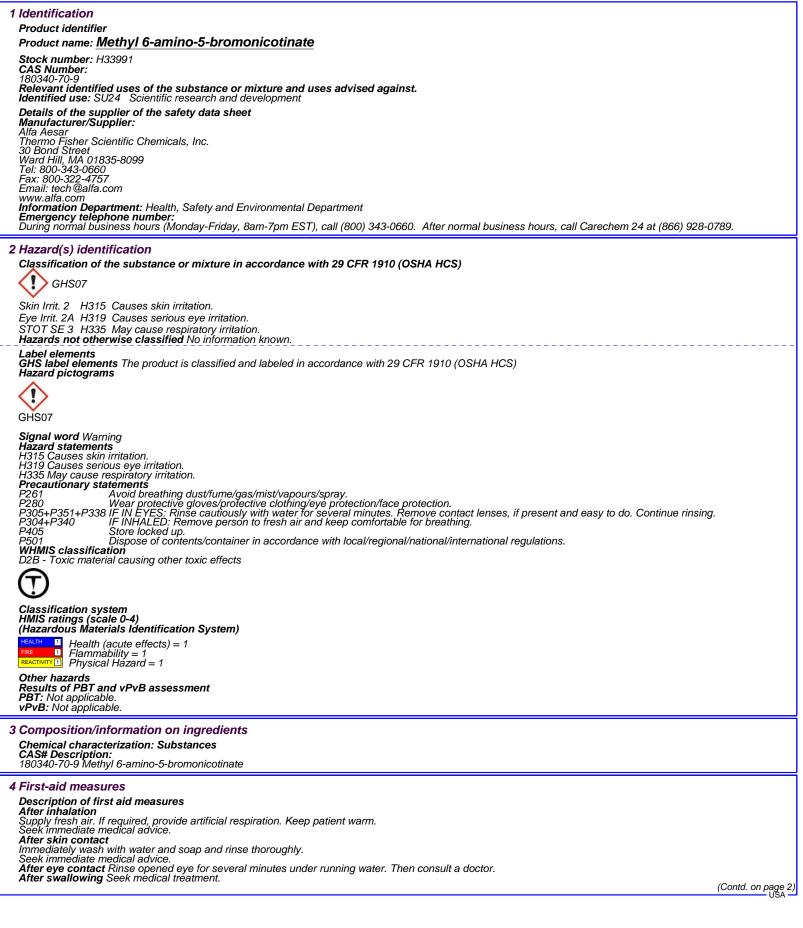


Safety Data Sheet per OSHA HazCom 2012



Product name: Methyl 6-amino-5-bromonicotinate

(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 Nitrogen oxides (NOx) Hydrogen bromide (HBr) 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: Powder Color: Pale brown Odor: Not determined Odor threshold: Not determined pH-value: Not applicable. Change in condition Melting point/Melting range: 166-169 °C (331-336 °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: Methyl 6-amino-5-bromonicotinate

Page 3/4 Printing date 11/24/2015 Reviewed on 02/14/2012

		(Contd. of page 2)
Decomposition temperature:	Not determined	Conta. or page 2
Auto igniting:	Not determined.	
Danger of explosion: Explosion limits:	Not determined.	
Lower: Upper:	Not determined Not determined	
Vapor pressure:	Not applicable. Not determined	
Density: Relative density	Not determined Not determined.	
Vapor density Evaporation rate	Not applicable. Not applicable.	
Solubility in / Miscibility with		
Water: Partition coefficient (n-octanol/water)	Not determined : Not determined.	
Viscosity: dynamic:	Not applicable.	
kinematic:	Not applicable.	
Other information	No further relevant information available.	
10 Stability and reactivity		
Reactivity No information known.		
Chemical stability Stable under recoming Thermal decomposition / conditions to the stability of the stabili	mended storage conditions. to be avoided: Decomposition will not occur if used and stored according to specifications.	
Possibility of hazardous reactions No	o dangerous reactions known	
Conditions to avoid No further relevan Incompatible materials: Oxidizing agei	t information available. hts	
Hazardous decomposition products: Carbon monoxide and carbon dioxide		
Nitrogen oxides		
Hydrŏgen bromide Possibly Hydrogen cyanide (HCN)		
11 Toxicological information		
Information on toxicological effects		
Acute toxicity: No effects known.		
LD/LC50 values that are relevant for of Skin irritation or corrosion: Causes skin irritation or corrosion: Causes skin irritation or corrosion in the state skin irritation of the skin irritatio of the skin irritation of the skin	kin irritation.	
Eye irritation or corrosion: Causes se Sensitization: No sensitizing effects kno	rious eye irritation.	
Germ cell mutagenicity: No effects kno	own.	
Carcinogenicity: No classification data Reproductive toxicity: No effects know	on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.	
Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - single exposure: May cause respiratory irritation.		
Aspiration hazard: No effects known.		
Subacute to chronic toxicity: No effect Additional toxicological information:	ts 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 inf	ormation available.	
Persistence and degradability No furth Bioaccumulative potential No further r	rerelevant information available.	
Mobility in soil No further relevant infor	mation available.	
Additional ecological information: General notes:		
Do not allow material to be released to t	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 assessmen PBT: Not applicable.	t	
vPvB: Not applicable. Other adverse effects No further releva	ant information available	
13 Disposal considerations Waste treatment methods		
Waste treatment methods Recommendation Consult state, local of	or national regulations to ensure proper disposal.	
Uncleaned packagings: Recommendation: Disposal must be m	ade 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	Mart and Parkin	
Class Packing group	Not applicable	
Packing group DOT, IMDG, IATA	Not applicable	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
A A	x II of MARPOL73/78 and the IBC Code Not applicable.	

(Contd. on page 4)

Safety Data Sheet per OSHA HazCom 2012

Page 4/4 Printing date 11/24/2015 Reviewed on 02/14/2012

Product name: Methyl 6-amino-5-bromonicotinate		
	(Contd. of page 3)	
Transport/Additional information:		
DOT Marine Pollutant (DOT):	No	
UN "Model Regulation":		
15 Descriptory information		
	ions/legislation specific for the substance or mixture ad and labeled in accordance with 29 CFR 1910 (OSHA HCS)	
GHS07		
 P405 Store locked up. P501 Dispose of contents/conta National regulations This product is not listed in the U.S. Environal to research and development only. This product must not be used for commercial pu SARA Section 313 (specific toxic chemical California Proposition 65 Prop 65 - Chemicals known to cause cand Prop 65 - Developmental toxicity, female Su Prop 65 - Developmental toxicity, male Su Information about limitation of use: For us Other regulations, limitations and prohibi Substance of Very High Concern (SVHC) The conditions of restrictions according to market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (red 	cer Substance is not listed. ce is not listed. Substance is not listed. Jostance is not listed. se only by technically qualified individuals.	
information to ensure proper use and protect	as a supplement to other information gathered by them, and should make independent judgement of suitability of this t the health and safety of employees. This information is furnished without warranty, and any use of the product not in Sheet, 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 11/24/20 Abbreviations and acronyms: RID: Reglement international concernant le transport des n ICAO: International Civil Aviation Organization ADR: Accord européen sur le transport des marchandises i IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information Syste LCSO: Lethal concentration, 50 percent LDSO: Lethal concentration, 50 percent VPVB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial H	015 / - narchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) n Chemical Society) em (Canada)	

ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)