

1 Identification Product identifier Product name: 3-Amino-5-chloropyridine Stock number: H31833 CAS Number: 22353-34-0 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 Fax: 800-322-4757 Email: tech@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 Acute Tox. 4 H302 Harmful if swallowed. Acute Tox. 4 H312 Harmful in contact with skin. Acute Tox. 4 H332 Harmful if inhaled. 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 H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled. H315 H319 Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. H335 Precautionary statements P280 Wear protective gloves / protective clothing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. WHMIS classification D1B - Toxic material causing immediate and serious toxic effects D2B - Toxic material causing other toxic effects ! Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) 2 Health (acute effects) = 2Flammability = 1 Physical Hazard = 1 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: 22353-34-0 3-Amino-5-chloropyridine 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. (Contd. on page 2)

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After swallowing Seek medical treatme	nt	(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 fol Carbon monoxide and carbon dioxide	Special hazards arising from the substance or mixture If this product is involved in a fire, the following can be released: Corban manavido and carbon diavido			
Nitrogen oxides (NOx)				
Hydrogen chloride (HCI) Hydrogen cyanide (HCN)				
Advice for firefighters Protective equipment:				
Wear self-contained respirator. Wear fully protective impervious suit.				
6 Accidental release measures				
Personal precautions, protective equi	pment and emergency procedures			
Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation				
Environmental precautions: Do not allo	ow material to be released to the environment without proper governmental permits. t and cleaning up:			
Dispose of contaminated material as was	ste according to section 13.			
Ensure adequate ventilation. Prevention of secondary hazards: No	special measures required.			
Reference to other sections See Section 7 for information on safe ha	ndlina			
See Section 8 for information on persona See Section 13 for disposal information.	al protection equipment.			
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7 Handling and storage Handling				
Precautions for safe handling Keep container tightly sealed.				
Store in cool, dry place in tightly closed of	containers.			
Ensure good ventilation at the workplace Information about protection against	explosions and fires: No information known.			
Conditions for safe storage, including Storage	any incompatibilities			
Requirements to be met by storeroom	s 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 prote				
Additional information about design of Properly operating chemical fume bood (of technical systems: designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.			
Control parameters				
	uire monitoring at the workplace: Not required.			
Exposure controls				
Personal protective equipment General protective and hygienic meas	ures			
The usual precautionary measures for handling chemicals should be followed.				
Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Weap bande before				
Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.				
Maintain an ergonomicálly 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 clothin	ng.			
9 Physical and chemical properties				
Information on basic physical and chemical properties General Information				
Appearance: Form:	Powder			
Color:	Brown			
Odor: Odor threshold:	Unpleasant Not determined.			
pH-value:	Not applicable.			
Change in condition Melting point/Melting range:	71-75 °C (160-167 °F)			
Boiling point/Boiling range: Sublimation temperature / start:	Not determined			
		(Contd on page 3)		

(Contd. on page 3) USA

Product name: 3-Amino-5-chloropyridine

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		(Contd. of page 2)	
Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: Auto igniting:	Not determined. Not determined Not determined Not determined.		
Danger of explosion: Explosion limits:	Product does not present an explosion hazard.		
Lower: Upper:	Not determined Not determined		
Vapor pressure: Density:	Not applicable. Not determined		
Relative density Vapor density	Not determined. Not applicable.		
Evaporation rate Solubility in / Miscibility with	Not applicable.		
Water: Partition coefficient (n-octanol/water)	Insoluble): Not determined.		
Viscosity: dynamic: kinematic:	Not applicable. Not applicable.		
Other information	No further relevant information available.	<u> </u>	
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 No dangerous reactions known Conditions to avoid No further relevant information available. Incompatible materials: Oxidizing agents Hazardous decomposition products: Carbon monoxide and carbon dioxide Nitrogen oxides			
Hydrogen chloride (HCl) Hydrogen cyanide			
11 Toxicological information Information on toxicological effects Acute toxicity: Harmful if inhaled. Harmful if ontact with skin. Harmful in contact with skin. Harmful in contact with skin. Harmful in contact with skin. Harmful is overlowed. Danger through skin absorption. LD/LC50 values that are relevant for classification: No data Skin irritation or corrosion: Causes skin irritation. Eye irritation or corrosion: Causes skin irritation. Eye irritation or corrosion: Causes serious eye irritation. Sensitization: No sensitizing effects known. Germ cell mutagenicity: No effects known. Carcinogenicity: No effects known. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - single exposure: No effects known. Specific target organ system toxicity - single exposure: May cause respiratory irritation. 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.			
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 material to be released to the environment without proper governmental permits. 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. Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.			
14 Transport information Not a hazardous material for transportation.			
UN-Number DOT, IMDG, IATA	None		
UN proper shipping name DOT, IMDG, IATA	None		
L		(Contd. on page 4) USA	

Product name: 3-Amino-5-chloropyridine	
	(Contd. of page 3)
Transport hazard class(es)	
DOT, ADR, IMDG, IATA	
Class	None
Packing group DOT, IMDG, IATA	None
Environmental hazards:	Not applicable.
Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	e Not applicable.
Transport/Additional information:	Not dangerous according to the above specifications.
DOT Marine Pollutant (DOT):	No
15 Regulatory information Safety, health and environmental regulations/legislation specific for the su GHS label elements The product is classified and labeled in accordance with 2 Hazard pictograms GHS07	Ibstance or mixture 9 CFR 1910 (OSHA HCS)
to research and development only. This product must be used by or directly unde product must not be used for commercial purposes or in formulations for comme 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. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified indiv. Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Regulati The conditions of restrictions according to Article 67 and Annex XVII of the market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for use) Sub Chemical safety assessment: A Chemical Safety Assessment has not been con	bstances Control Act Chemical Substance Inventory. Use of this product is restricted der the supervision of a technically qualified individual as defined by TSCA. This ercial purposes. viduals. tions (EC) No. 1907/2006. Substance is not listed. te Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the
 16 Other information Employers should use this information only as a supplement to other information information to ensure proper use and protect the health and safety of employees conformance with this Material Safety Data Sheet, or in combination with any other of preparation / last revision 11/24/2015 / - Abbreviations and acronyms: RID: Redjement international concernant le transport des marchandises dangereuses par chemin de fer (RATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Maritme Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport des marchandises dangereuses par chemin de fer (RATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organization ICAO: International Maritme Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Information System (USA) WFHMIS: 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) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)	