

1 Identification Product identifier Product name: 3-Amino-4-chloropyridine Stock number: L19726 CAS Number: 0511-15-3 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: 20511-15-3 3-Amino-4-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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Extension and a second of a file. The following can be released from where spray. Fight larger files with water spray or alcohol resistant loam. This product is moved in a file. The following can be released from the release explanation. <b>Personal proceedings product a demonstration of the released from the released from the released from the release explanation of the release of the re</b>	Information for doctor Most important symptoms and effects	s, both acute and delayed No further relevant information available.	(Contd. of page 1)		
Personal presentions, protective equipment, and emergency proceedures Wear products equipment, Resput profession depressions avery: Ensure adequate vehicular Methods and Interial for containment and cleansing up: Depression of contaminated material to containment and cleansing up: Depression of the secondary heast- Resonance to other sections Foreign of the secondary heast- Resonance of the	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) Possibly Hydrogen cyanide (HCN) Hydrogen chloride (HCI) Advice for firefighters Protective equipment: Wear self-contained respirator.				
Handling Precautions for safe handling Keep container lightly sealed.         Expression for safe handling Keep container lightly sealed.         Ensure room with the workplace.         Ensure room with the workplace.         Conditions for safe handling information about protection against explosions and fires: No information known.         Conditions for safe storage.         Requirements to be met by storanooms and receptacles: No special requirements. Further information about storage conditions: Keep container tightly sealed.         Store in rood, dry conditions in well sealed containers.         Specific and uses) No information available.         8 Exposure controls/personal protection Additional information about design of technical systems: Properly operating chemical lume 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 available.         Exposure controls Personal protective equipment General protective equipment Components with limit values that require monitoring at the workplace: Not required.         Remove all sciled and containmaked clothing immediately.         Weed occlass and the general storage with weight in the concentrations are present.         Proceal protective equipment Control parameters Components with limit values that require monitoring at the workplace.         Remove all sciled and contaminated clothing immediately.	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: Dispose of contaminated material as waste 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 handling See Section 8 for information on personal protection equipment.				
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 equipments for handling chemicals should be followed.         Keep away from foodstuffs, beverages and feed.         Retrove and bygienc measures to the end of work.         Wash hands before breaks and at the end of work.         Avaid contaminated clothing immediately.         Wash hands before breaks and at the end of work.         Avaid contaminated (in the ess suitable respirator when high concentrations are present.         Protection of hands:         Impervious gloves         Check protective gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.         Perfection of suitable gloves not clothing.         Bod protective work clothing.         9 Physical and chemical properties         Information on basic physical and chemical properties         General information         Apparature:         Odor:       Umpleasant         Odor:       U	Handling Precautions for safe handling Keep container tighty sealed. Store in cool, dry place in tighty 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 tighty sealed				
Body protection: Protective work clothing.         9 Physical and chemical properties         Information on basic physical and chemical properties         General Information         Appearance:         Form:       Powder         Color:       Cream         Odor:       Unpleasant         Odor threshold:       Not determined.         pH-value:       Not applicable.         Change in condition       Sublimation temperature / start:         Melting point/Boiling range:       59-62 °C (138-144 °F)         Boiling point/Boiling range:       Not determined         Sublimation temperature / start:       Not determined	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 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 solied 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 gloves material (in minutes) Not determined				
General Information       Form         Appearance:       Form:         Form:       Powder         Color:       Cream         Odor:       Unpleasant         Odor threshold:       Not determined.         pH-value:       Not applicable.         Change in condition       Sublimation temperature / start:         Melting point/Boiling range:       59-62 °C (138-144 °F)         Boiling point/Boiling range:       Not determined         Sublimation temperature / start:       Not determined	Body protection: Protective work clothing.				
Odor threshold:       Not determined.         pH-value:       Not applicable.         Change in condition Melting point/Melting range:       59-62 °C (138-144 °F)         Boiling point/Boiling range:       Not determined         Sublimation temperature / start:       Not determined	Information on basic physical and ch General Information Appearance: Form: Color:	emical properties Powder Cream			
pH-value:       Not applicable.         Change in condition       Netting point/Melting range:       59-62 °C (138-144 °F)         Boiling point/Boiling range:       Not determined       Not determined         Sublimation temperature / start:       Not determined       (Contd. on page 3)					
Change in condition Melting point/Melting range: 59-62 °C (138-144 °F) Boiling point/Boiling range: Not determined Sublimation temperature / start: Not determined (Contd. on page 3					
USA	Change in condition Melting point/Melting range: Boiling point/Boiling range:	59-62 °C (138-144 °F) Not determined	(Control on page 2)		
			USA -		

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Product name: 3-Amino-4-chloropy	ridine			
		(Contd. of page 2)		
Flash point: Flammability (solid, gaseous)	Not applicable Not determined.			
Ignition temperature:	Not determined			
Decomposition temperature: Auto igniting:	Not determined Not determined.			
Danger of explosion:	Product does not present an explosion hazard.			
Explosion limits: Lower:	Not determined			
Upper: Vapor pressure:	Not determined Not applicable.			
Density: Relative density	Not determined Not determined.			
Vapor density	Not applicable.			
Evaporation rate Solubility in / Miscibility with	Not applicable.			
Water: Partition coefficient (n-octanol/water)	Slightly soluble : Not determined.			
Viscosity: dynamic:	Not applicable.			
kinematic: Other information	Not applicable. No further relevant information available.			
10 Stability and reactivity				
Reactivity No information known. Chemical stability Stable under recomi	mended storage conditions			
Thermal decomposition / conditions t	to be avoided: Decomposition will not occur if used and stored according to specifications.			
Possibility of hazardous reactions No Conditions to avoid No further relevan	t information available.			
Incompatible materials: Oxidizing age Hazardous decomposition products:	nts			
Carbon monoxide and carbon dioxide Nitrogen oxides				
Hydrogen chloride (HCl) Possibly Hydrogen cyanide (HCN)				
11 Toxicological information				
Information on toxicological effects Acute toxicity:				
Harmful if inhaled. Harmful in contact with skin.				
Harmful if swallowed.				
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 serious eye irritation.				
Sensitization: No sensitizing effects known. Germ cell mutagenicity: No effects known.				
Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.				
Reproductive foxicity: No effects known. 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 effects known. Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.				
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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 undiluted product or large quantities to reach ground water, water course or sewage system. Avoid transfer into the environment.				
Results of PBT and vPvB assessmen	t			
PBT: Not applicable. vPvB: Not applicable.				
Other adverse effects No further releva	ant information available.			
13 Disposal considerations				
Waste treatment methods Recommendation Consult state, local or national regulations to ensure proper disposal.				
Uncleaned packagings:	Uncleaned packagings: Recommendation: Disposal must be made according to official regulations.			
<b>14 Transport information</b> Not a hazardous material for transportat	ion			
UN-Number DOT, IMDG, IATA	None			
UN proper shipping name DOT, IMDG, IATA				
DOT, IMDG, IATA ~	None	(Contd on page 4)		
		(Contd. on page 4) USA		

Product name: 3-Amino-4-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	· ·
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 Signal word Warning Hazard statements H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled. H315 Causes skin irritation.	Ibstance or mixture 9 CFR 1910 (OSHA HCS)
<ul> <li>H319 Causes serious eye irritation.</li> <li>H335 May cause respiratory irritation.</li> <li>Precautionary statements</li> <li>P280 Wear protective gloves / protective clothing.</li> <li>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.</li> <li>National regulations</li> <li>This product is not listed in the U.S. Environmental Protection Agency Toxic Sult to research and development only. This product must be used by or directly una product must not be used for commercial purposes or in formulations for commercial purposes or in formulations for commercial proposition 65</li> <li>Prop 65 - Chemicals known to cause cancer Substance is not listed.</li> <li>Prop 65 - Developmental toxicity, female Substance is not listed.</li> <li>Prop 65 - Developmental toxicity, male Substance is not listed.</li> <li>Prop 65 - Developmental toxicity, for substance is not listed.</li> <li>Prop 65 - Developmental toxicity, and Substance is not listed.</li> <li>Prop 65 - Developmental toxicity, and Substance is not listed.</li> <li>Prop 65 - Developmental toxicity, and Substance is not listed.</li> <li>Prop 65 - Developmental toxicity, the substance is not listed.</li> <li>Prop 65 - Developmental toxicity, and Substance is not listed.</li> <li>Prop 65 - Developmental toxicity, and Substance is not listed.</li> <li>Prop 65 - Developmental toxicity, and Substance is not listed.</li> <li>Prop 65 - Developmental toxicity, and Substance is not listed.</li> <li>Prop 65 - Developmental toxicity, and Substance is not listed.</li> <li>Prop 65 - Developmental toxicity, male Substance is not listed.</li> <li>Bromation about limitations and prohibitive regulations</li> <li>Substance of Very High Concern (SVHC) according to the REACH Regulation market and use must be observed.</li> <li>Substance is not listed.</li> <li>Annex XIV of the REACH Regulations (requiring Authorisation for use) Sub Chemical safety assessment: A Chemical Safety Assessment has not been canced to the product of the product of the produca</li></ul>	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. The Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the
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 ot	n gathered by them, and should make independent judgement of suitability of this is. This information is furnished without warranty, and any use of the product not in ther product or process, is the responsibility of the user.
Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / - Abbreviations and acronyms:         RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (l IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organization         ICAO: International Civil Aviation Organization ICAO: TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transport Association IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA)         WHMIS: Workplace Hazardous Materials Information System (Canada) LCSO: Lethal concentration, S0 percent LDSO: Lethal concentration, S0 percent PV-B: 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)         NTP: National Toxicology Program (USA)         NTP: National Toxicology Program (USA)         NTP: Anterican Agency for Research on Cancer EPA: Environmental Protection Agency (USA)	(Regulations Concerning the International Transport of Dangerous Goods by Rail)