



1 Identification Product identifier Product name: 4-Ethynylpyridine hydrochloride Stock number: H53455 CAS Number: 352530-29-1 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 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 

 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 victim to fresh air and keep at rest in a position comfortable for breathing.

 P362
 Take off contaminated clothing and wash before reuse.

 P321
 Specific treatment (see on this label).

 P332+P313
 If skin irritation occurs: Get medical advice/attention.

P405 Store locked up. P403+P233 Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/international regulations. WHMIS classification D2B - Toxic material causing other toxic effects Т Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) 1 Health (acute effects) = 1 Flammability = 1 Flammability = 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: 352530-29-1 4-Ethynylpyridine hydrochloride 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)

## Safety Data Sheet acc. to OSHA HCS

## Product name: 4-Ethynylpyridine hydrochloride (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 Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. 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 chloride (HCl) 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 product to reach sewage system or any water course. 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: 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 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 solled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Avoid contact with the ever and skin. Avoid contact with the eyes and skin. Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. Recommended filter device for short term use: Use a respirator with type N95 (USA) or PE (EN 143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards. 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. Eve 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 Odor: Not determined Odor threshold: Not determined pH-value: Not applicable. (Contd. on page 3)

## Product name: 4-Ethynylpyridine hydrochloride

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	Kevis	
Product name: 4-Ethynylpyridine hy	/drochloride	
		(Contd. of page 2)
Change in condition		
Melting point/Melting range: Boiling point/Boiling range:	ca 150 °C (ca 302 °F) (dec) Not determined	
Sublimation temperature / start: Flammability (solid, gaseous)	Not determined Not determined.	
Ignition temperature:	Not determined	
Decomposition temperature: Auto igniting:	Not determined Not determined.	
Danger of explosion:	Not determined.	
Explosion limits:		
Lower: Upper:	Not determined 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:	Not determined	
Partition coefficient (n-octanol/water)	): Not determined.	
Viscosity: dynamic:	Not applicable.	
kinematic: Other information	Not applicable. No further relevant information available.	
Other Information		
0 Stability and reactivity		
Reactivity No information known.		
Chemical stability Stable under recomin Thermal decomposition / conditions to	mended storage conditions. to be avoided: Decomposition will not occur if used and stored according to specifications.	
Possibility of hazardous reactions Re Conditions to avoid No further relevan	eacts with strong oxidizing agents	
Incompatible materials: Oxidizing age	nts	
Hazardous decomposition products: Carbon monoxide and carbon dioxide		
Nitrogen oxides		
Hydrŏgen chloride (HCl)		
1 Toxicological information		
Information on toxicological effects Acute toxicity: No effects known.		
LD/LC50 values that are relevant for o		
Skin irritation or corrosion: Causes sl Eye irritation or corrosion: Causes se	kin irritation. Prious eve irritation	
Sensitization: No sensitizing effects kn	iown.	
	on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.	
Reproductive toxicity: No effects know Specific target organ system toxicity	vn. - 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	sts known.	
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.	
Carcinogenic categories OSHA-Ca (Occupational Safety & Hea	alth Administration) Substance is not listed.	
2 Ecological information		
Toxicity		
Aquatic toxicity: No further relevant inf Persistence and degradability No furth	formation available.	
Bioaccumulative potential No further i	relevant information available	
Mobility in soil No further relevant infor Additional ecological information:	rmation available.	
General notes:	supplities to reach around water, water course or course outer	
Avoid transfer into the environment.	quantities to reach ground water, water course or sewage system.	
<b>Results of PBT and vPvB assessmen</b> <b>PBT:</b> Not applicable.	t	
vPvB: Not applicable.		
	ant information available	
Other adverse effects No further releva	ant information available.	
Other adverse effects No further releva 3 Disposal considerations	ant information available.	
Other adverse effects No further releva 3 Disposal considerations Waste treatment methods		
Other adverse effects No further releva 3 Disposal considerations Waste treatment methods Recommendation Consult state, local of Uncleaned packagings:	or national regulations to ensure proper disposal.	
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Other adverse effects No further releva 3 Disposal considerations Waste treatment methods Recommendation Consult state, local of Uncleaned packagings: Recommendation: Disposal must be m 4 Transport information UN-Number	or national regulations to ensure proper disposal. nade according to official regulations.	
Other adverse effects No further releva 3 Disposal considerations Waste treatment methods Recommendation Consult state, local of Uncleaned packagings: Recommendation: Disposal must be m 4 Transport information UN-Number DOT, ADN, IMDG, IATA	or national regulations to ensure proper disposal.	
Other adverse effects No further releva 3 Disposal considerations Waste treatment methods Recommendation Consult state, local of Uncleaned packagings: Recommendation: Disposal must be m 4 Transport information UN-Number DOT, ADN, IMDG, IATA UN proper shipping name DOT, ADN, IMDG, IATA	or national regulations to ensure proper disposal. nade according to official regulations.	
Other adverse effects No further releva 3 Disposal considerations Waste treatment methods Recommendation Consult state, local of Uncleaned packagings: Recommendation: Disposal must be m 4 Transport information UN-Number DOT, ADN, IMDG, IATA UN proper shipping name DOT, ADN, IMDG, IATA Transport hazard class(es)	or national regulations to ensure proper disposal. nade according to official regulations. Not applicable	
Other adverse effects No further releva 3 Disposal considerations Waste treatment methods Recommendation Consult state, local of Uncleaned packagings: Recommendation: Disposal must be m 4 Transport information UN-Number DOT, ADN, IMDG, IATA UN proper shipping name DOT, ADN, IMDG, IATA	or national regulations to ensure proper disposal. nade according to official regulations. Not applicable	

## Product name: 4-Ethynylpyridine hydrochloride (Contd. of page 3) Packing group DOT, IMDG, IATA Not applicable Environmental hazards: Not applicable. Special precautions for user Not applicable. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. Transport/Additional information: DOT Marine Pollutant (DOT): No UN "Model Regulation": -15 Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture 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 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 victim to fresh air and keep at rest in a position comfortable for breathing. P362 Take off contaminated clothing and wash before reuse. P321 Specific treatment (see on this label). P332+P313 If skin irritation occurs: Get medical advice/attention. Store locked up. Store in a well-ventilated place. Keep container tightly closed. P405 P403+P233 Dispose of contents/container in accordance with local/regional/national/international regulations. P501 National regulations This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only. This product must be used by or directly under the supervision of a technically qualified individual as defined by TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes. This product is not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL). 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 individuals. Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for use) Substance is not listed. Chemical safety assessment: A Chemical Safety Assessment has not been carried out. 16 Other information Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. Department issuing SDS: Global Marketing Department Date of preparation / last revision 07/01/2016 / - Date of preparation / last revision 07/01/2016'/ Abbreviations and acronyms: DR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) DOT: US Department of Transportation CAS: Chemical Abstracts Service (division of the American Chemical Society) HMINS: Hazardous Materials Identification System (USA) WMHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent UPUS: USY Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) Skin Intri. 2: Skin corrosion/irritation, Hazard Category 2 Eye Irrit. 24: Serious eye damage/eye irritation, Hazard Category 2A Stort SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3 LISA