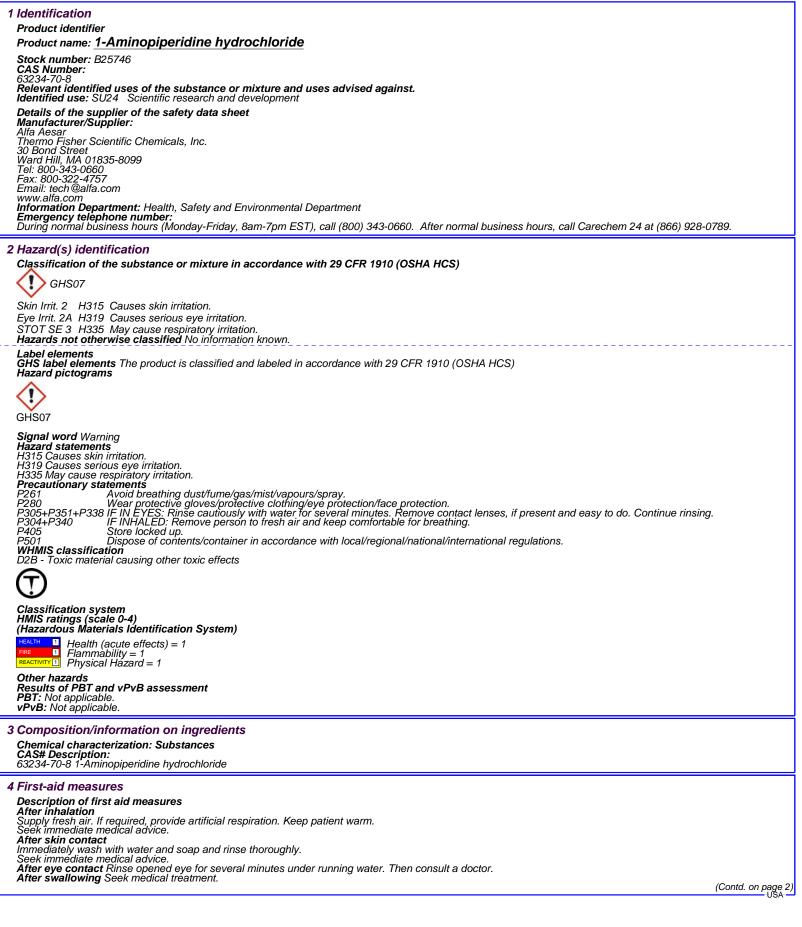


Safety Data Sheet per OSHA HazCom 2012



Product name: 1-Aminopiperidine hydrochloride (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 chloride (HCI) 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: Not required. Additional information: No data 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 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 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 powder White Color: Odor: Not determined Odor threshold: Not determined pH-value: Not applicable. Change in condition 146-151 °C (295-304 °F) Not determined Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start: Not determined Flash point: Not applicable Flammability (solid, gaseous) Not determined Ignition temperature: Decomposition temperature: Not determined Not determined (Contd. on page 3)

Product name: 1-Aminopiperidine hydrochloride

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Other Information No further relevant information available. 10 Stability and reactivity Reactivity to information incommended storage conditions. Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications. Thermal decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications. Pessibility of instancious reactions known properties. Personality of the avoided: Personality of the avoided: Personality of the avoided in the avoid of the av	Viscosity: dynamic:	Not applicable.	
Reactivity No information known. Chemical stability Subale under recommended storage conditions. Therm id decomposition / conditions to be avoided: Decomposition will not occur if used and stored according to specifications. Conditions to avoid No further relevant information avoilable. Prior store in the condition of the avoid of the condition avoilable. Prior store in the condition of the condition avoilable. Prior store in the condition of the condition avoilable. Prior store in the condition of the condition avoilable. Prior store in the condition of the condition avoilable. Prior store in the condition of condition of the condition of the condition of the condition. Section monowers that are condition. Prior store in the condition. Section monowers that are constant. Section monowers that are constant.<	kinematic: Other information	Not applicable. No further relevant information available.	
Skin irritation or corrosion: Causes skin irritation. Sensitization: No sensitizing effects known. Sensitization: No sensitizing effects known. Garcinogenity: No desitisation of acronogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. Reproductive toxicity: No effects known. Specific target organ system toxicity - repeated exposure: May cause respiratory irritation. Appration hazard: No effects known. Specific target organ system toxicity - single exposure: May cause respiratory irritation. Appration hazard: No effects known. Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. 22 Ecological information Toxicity Adjustic toxicity: No further relevant information available. Breaccumulative potential No further relevant information available. Breaccumulative potential No information available. General notes: Do not allow undiluided product of the environment without proper governmental permits. Do not allow undiluided product of targe quantilies to reach ground water, waler course or sewage system. Avoid transfer into the environment. Perfects No turther relevant information available. Thera adverse effects No further relevant information available.	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 (HCI) 11 Toxicological information Information on toxicological effects		
Toxicity Aquatic toxicity: No further relevant information available. Persistence and degradability No further relevant information available. Mobility in soil 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 assessment PBT: Not applicable. Other adverse effects No further relevant information available. 313 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. Recommendation: Disposal must be made according to water. UN-Number DOT, IMDG, IATA None UN-Number DOT, MDG, IATA None DOT, ADR, IMDG, IATA None Packing group DOT, IMDG, IATA No	Skin irritation or corrosion: Causes ski Eye irritation or corrosion: Causes seri Sensitization: No sensitizing effects kno Germ cell mutagenicity: No effects know Carcinogenicity: No classification data of Reproductive toxicity: No effects know Specific target organ system toxicity - Specific target organ system toxicity - Aspiration hazard: No effects known. Subacute to chronic toxicity: No effects	in irritation. ious eye irritation. wn. wn. on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. n. repeated exposure: No effects known. single exposure: May cause respiratory irritation. s known.	
Wase treatment methods Recommendation Consult state, local or national regulations to ensure proper disposal. Uncleaned packagings: Recommendation: Disposal must be made according to official regulations. Recommended cleansing agent: Water, if necessary with cleansing agents. 14 Transport information Not a hazardous material for transportation. None UN-Number DOT, IMDG, IATA None UN proper shipping name DOT, ADR, IMDG, IATA None DOT, ADR, IMDG, IATA None Packing group DOT, IMDG, IATA None Environmental hazards: Not applicable. Special precautions for user Not applicable. <th>Toxicity Aquatic toxicity: No further relevant info Persistence and degradability No furthe Bioaccumulative potential No further re Mobility in soil No further relevant inform Additional ecological information: General notes: Do not allow material to be released to th Do not allow undiluted product or large qu Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: Not applicable.</th> <th>er relevant information available. elevant information available. nation available. ne environment without proper governmental permits. uantities to reach ground water, water course or sewage system.</th> <th></th>	Toxicity Aquatic toxicity: No further relevant info Persistence and degradability No furthe Bioaccumulative potential No further re Mobility in soil No further relevant inform Additional ecological information: General notes: Do not allow material to be released to th Do not allow undiluted product or large qu Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: Not applicable.	er relevant information available. elevant information available. nation available. ne environment without proper governmental permits. uantities to reach ground water, water course or sewage system.	
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	Special precautions for user	Not applicable.	
			(Contd. on page 4) USA

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USA -

Product name: 1-Aminopiperidine hydrochloride			
	(Contd. of page 3)		
Transport in bulk according to Annex II of MARPOL73/78 and the I	BC Code Not applicable.		
Transport/Additional information:	Not dangerous according to the above specifications.		
DOT Marine Ballutent (DOT):	No		
Marine Pollutant (DOT):	No		
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			
Figure 1 Signal word Warning Hazard statements Masard statements M315 Causes skin irritation. M315 Causes skin irritation. M315 Causes skin irritation. M315 Causes service word warning Precautionary statements Precautionary statements P261 Avoid breathing dust/furne/gas/mist/vapours/spray. P304-P351+P338 IF IN EVES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304-P30 Dispose of contents/container in accordance with local/regional/national/international 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 restrict 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 hot be used for commercial purposes or in formulations for commercial purposes. SARA Section 313 (specific toxic chemical listings) Substan			
Annex XIV of the REACH Regulations (requiring Authorisation for u Chemical safety assessment: A Chemical Safety Assessment has not	use) Substance is not listed.		
16 Other information Employers should use this information only as a supplement to other inf	formation gathered by them, and should make independent judgement of suitability of this mployees. This information is furnished without warranty, and any use of the product not in		
Department issuing SDS: Global Marketing Department Date of preparation / last revision 11/24/2015 / - Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of 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) LC50: Lethal dose, 50 percent UD50: Lethal dose, 50 percent UD50: Lethal dose, 50 percent CAS: Chemican Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) MTP: National Toxicology Program (USA)			

NTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)