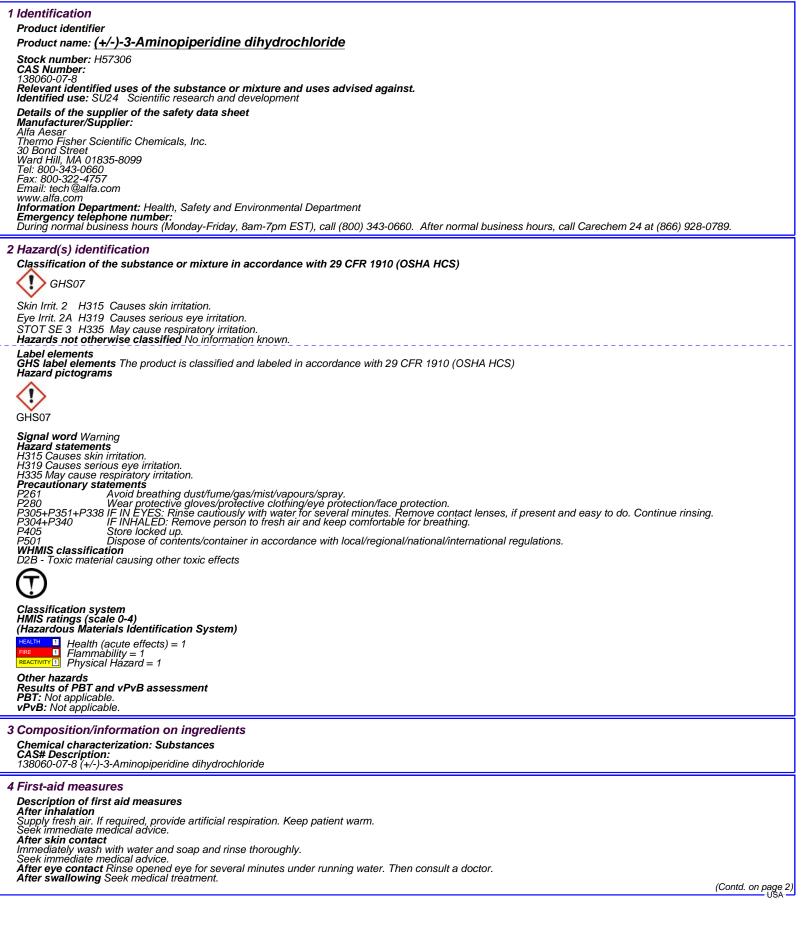


Safety Data Sheet per OSHA HazCom 2012



(Contd. of page 1)

Safety Data Sheet per OSHA HazCom 2012 Product name: (+/-)-3-Aminopiperidine dihydrochloride 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 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 Handle under dry protective gas. 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 water/moisture. Store away from oxidizing agents. Further information about storage conditions: Store under dry inert gas. This product is hygroscopic. Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. Protect from humidity and water. 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 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.

Vash 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. **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. Eye protection: Safety glasses

Body protection: Protective work clothing.

**0** Physical and chemical properties

9 Physical and chemical properties		
Information on basic physical and ch General Information Appearance: Form: Color: Odor: Odor threshold:	emical properties Solid White to pale yellow Not determined Not determined.	
pH-value:	Not applicable.	

(Contd. on page 3)

## Product name: (+/-)-3-Aminopiperidine dihvdrochloride

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Product name: (+/-)-3-Aminopiperidi	ine dihvdrochloride	I
100000000000000000000000000000000000000		· · · · · · · · · · · · · · · · · · ·
		(Contd. of page 2)
Change in condition Melting point/Melting range:	230 °C (446 °F)	
Boiling point/Boiling range: Sublimation temperature / start:	Not determined	
Sublimation temperature / start:	Not determined	
Flammability (solid, gaseous) Ignition temperature:	Not determined. Not determined	
Decomposition temperature:	Not determined	
Auto igniting:	Not determined.	
Danger of explosion: Explosion limits:	Not determined.	
Explosion limits: Lower:	Not determined	
Upper:	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): 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 recomr	mended storage conditions. <b>to be avoided:</b> Decomposition will not occur if used and stored according to specifications.	1
Thermal decomposition / conditions to Possibility of hazardous reactions Rea	<b>to be avoided</b> : Decomposition will not occur if used and stored according to specifications.	
Conditions to avoid No further relevant	acts with strong oxidizing agents if information available.	1
Incompatible materials:		1
Water/moisture Oxidizing agents		1
Hazardous decomposition products:		1
Carbon monoxide and carbon dioxide Nitrogen oxides		1
Hydrogen chloride (HCl)		
11 To de a la vical information		
11 Toxicological information		1
Information on toxicological effects Acute toxicity: No effects known.		1
LD/LC50 values that are relevant for cl		1
Skin irritation or corrosion: Causes ski Eye irritation or corrosion: Causes ser	erious eye irritation.	1
Sensitization: No sensitizing effects kno Germ cell mutagenicity: No effects kno	ious eye imaion. iown.	1
Carcinogenicity: No classification data (	on carcinogenic properties of this material is available from the FPA, IARC, NTP, OSHA or ACGIH.	
Reproductive toxicity: No effects know	wn.	
Specific target organ system toxicity -	r - repeated exposure: No effects known.	I
Aspiration hazard: No effects known.	- single exposure: May cause respiratory irritation.	
Subacute to chronic toxicity: No effect	cts 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 info	formation available.	
Persistence and degradability No furth Bioaccumulative potential No further re	ner relevant information available.	
Mobility in soil No further relevant inforr	rmation available.	
Additional ecological information: General notes:		
Do not allow undiluted product or large g	quantities to reach ground water, water course or sewage system.	
Avoid transfer into the environment. Results of PBT and vPvB assessment		
PBT: Not applicable.	1	I
vPvB: Not applicable. Other adverse effects No further releva		
	Int information available.	
13 Disposal considerations		
Waste treatment methods		
	or national regulations to ensure proper disposal.	I
Recommendation: Disposal must be ma	nade according to official regulations.	I
,		
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	··· ··· ··· ··· ··· ··· ··· ··· ··· ··	
Class	Not applicable	
		(Contd. on page 4)

(Contd. on page 4)

## Product name: (+/-)-3-Aminopiperidine dihydrochloride (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: ΠΟΤ 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. 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 person to fresh air and keep comfortable for breathing. P405 Store locked up. . P501 Dispose of contents/container in accordance with local/regional/national/international regulations. National regulations. 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 (NDSL). Substances List (NDSL). 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. 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 11/24/2015 / -Date of preparation / last revision 11/24/2015 / -Abbreviations and acronyms: ADR: 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) HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent USD: Lethal concentration, 50 percent VPUB: very Persistent and very Bioaccumulative VPUB: very Persistent and very Bioaccumulative ACGIH: American Cocupational Safety and Health Administration (USA) NTP: National Toxicology Program (USA) NTP: National Toxicology Program (USA)