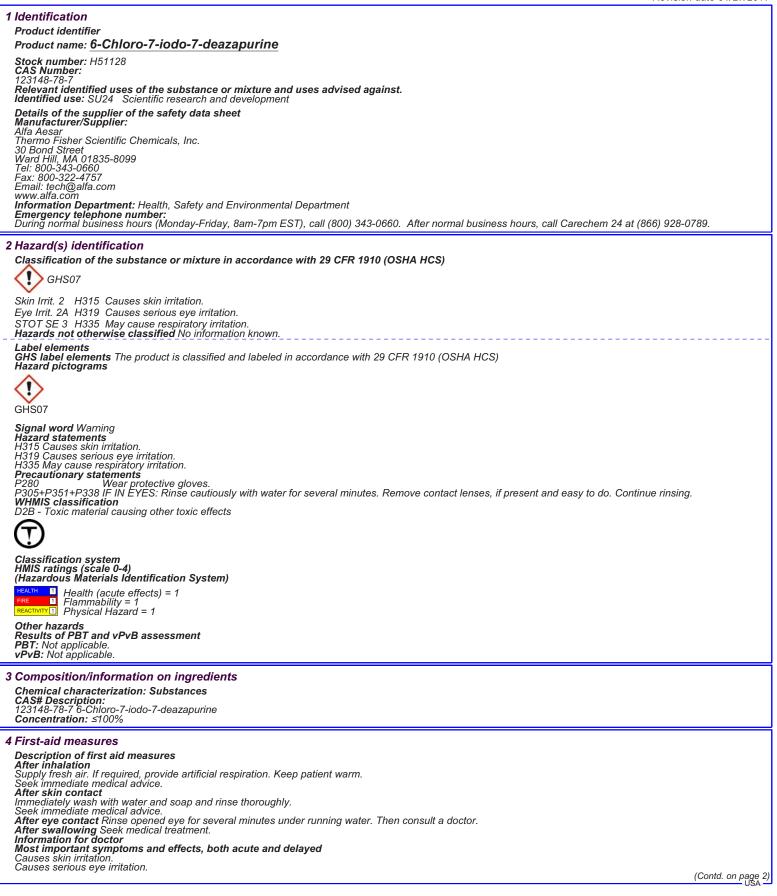


Safety Data Sheet acc. to OSHA HCS

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(Contd. of page 1)

Product name: 6-Chloro-7-iodo-7-deazapurine

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 Hydrogen oxides (HI) Nitrogen oxides (NOx) Hydrogen chloride (HO)

Nulogen 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

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 in the dark. Store away from oxidizing agents. Further information about storage conditions: Keep container tightly sealed. Store in cool, dry conditions in well sealed containers. Protect from exposure to light. 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: The 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

ersonal 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.

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. 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.

9 Physical and chemical properties

Information on basic physical and ch General Information Appearance: Form: Odor: Odor: Odor threshold:	semical properties Solid Odorless Not determined.		
pH-value:	Not applicable.		
Change in condition Melting point/Melting range: Boiling point/Boiling range: Sublimation temperature / start:	ca 180 °C (ca 356 °F) (dec) Not determined Not determined		
		(0)	~

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Product name: 6-Chloro-7-iodo-7-de	azapurine	
		(Contd. of page 2)
Flammability (solid, gaseous)	Not determined. Not determined	
Ignition temperature: Decomposition temperature:	Not determined	
Auto igniting:	Not determined.	
Danger of explosion: Explosion limits:	Not determined.	
Lower: Upper:	Not determined Not determined	
Vapor pressure:	Not applicable.	
Density: Relative density	Not determined Not determined.	
Vapor density Evaporation rate	Not applicable. Not applicable.	
Solubility in / Miscibility with		
Water: Partition coefficient (n-octanol/water).	Insoluble Not determined.	
Viscosity: dynamic:	Not applicable.	
kinematic:	Not applicable.	
Other information	No further relevant information available.	
10 Stability and reactivity		
Reactivity No information known		
Chemical stability Stable under recommendations the composition of the composition of the conditions the conditions the conditions of the condition of the cond	o be avoided: Decomposition will not occur it used and stored according to specifications.	
Possibility of hazardous reactions Re Conditions to avoid No further relevant	acts with strong oxidizing agents	
Incompatible materials:		
Oxidizing agents Light		
Hazardous decomposition products: Carbon monoxide and carbon dioxide		
Hydrogen iodide (HI)		
Nitrogen oxides Hydrogen chloride (HCl)		
11 Toxicological information		
Information on toxicological effects		
Acute toxicity: No effects known.		
LD/LC50 values that are relevant for c Skin irritation or corrosion: Causes sk	lassification: No data in irritation	
Eve irritation or corrosion: Causes ser	ious eve irritation.	
Sensitization: No sensitizing effects kno Germ cell mutagenicity: No effects kno	wn.	
Carcinogenicity: No classification data Reproductive toxicity: No effects know	on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.	
Specific target organ system toxicity	- repeated exposure: No effects known	
Aspiration hazard: No effects known.	single exposure: May cause respiratory irritation.	
Subacute to chronic toxicity: No effect	ts known. 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	Ith Administration) Substance is not listed.	
12 Ecological information		
Toxicity		
Aquatic toxicity: No further relevant info Persistence and degradability No furth	ormation available. ier relevant information available.	
Bioaccumulative potential No further n	elevant information available.	
Aquatic toxicity: No further relevant info Persistence and degradability No furth Bioaccumulative potential No further r Mobility in soil No further relevant infor Additional ecological information: Concert pote: Avoid transfer into the e		
General notes: Avoid transfer into the e Results of PBT and vPvB assessment	nvironment.	
PBT: Not applicable		
vPvB: Not applicable. Other adverse effects No further releva	nt information available.	
13 Disposal considerations		
Waste treatment methods		
	r national regulations to ensure proper disposal.	
Recommendation: Disposal must be m	ade according to official regulations.	
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	NI-4	
Class Packing group	Not applicable	
Packing group DOT, IMDG, IATA	Not applicable	
		(Contd. on page 4)



USA

Product name: 6-Chloro-7-iodo-7-deazapurine (Contd. of page 3) 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 1 GHS07 Signal word Warning Hazard statements Hazara statements H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. **Precautionary statements** D290 P280 Wear protective gloves. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P305+P351+P338 IF IN ÉYES: Rinše cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 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. Prop 65 - Chemicals known to cause cancer 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. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity and prohibitive regulations Other regulations, limitation of use, Pol 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 Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user. conformance with this 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 01/30/2017 / Abbreviations and acromys: Department of Transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) DOT: US Department of Transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) DOT: US Department of 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 LD50: Lethal concentration, 50 percent VP-WE very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) MTP: National Toxicology Program (USA) Sin Intri. 2: Skin corrosion/intiation, Hazard Category 2A Eye Intt. 24: Serious eye damage/eye Intiation, Hazard Category 2A STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3