

Safety Data Sheet per OSHA HazCom 2012

1 Identification

Product identifier Product name: (+/-)-Octopamine hydrochloride Stock number: J61281 CAS Number: 770-05-8 EC number: 212-216-4 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 Thermo Fisher Scientific Chemicals, Inc. Inerrito Fisher Scheman C. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660 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 Acute Tox. 4 H302 Harmful if swallowed. 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 Harmful if swallowed. 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 person to fresh air and keep comfortable for breathing. Store locked up. P405 D50 Dispose of contents/container in accordance with local/regional/national/international regulations. WHMIS classification D2B - Toxic material causing other toxic effects T Classification system HMIS ratings (scale 0-4) (Hazardous Materials Identification System) Health (acute effects) = 2 Flammability = 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: 770-05-8 (+/-)-Octopamine hydrochloride Identification number(s): EC number: 212-216-4 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. (Contd. on page 2)

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# Product name: (+/-)-Octopamine hydrochloride

After skin contact

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. After swallowing Seek medical treatment. 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: It this product is involved in a fire, the Carbon monoxide and carbon dioxide Nitrogen oxides (NOx) Hydrogen chloride (HCI) Possibly Hydrogen cyanide (HCN) 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:

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. 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. drv

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: 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

General protective equipment General protective and hygienic measures

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 eves and skin. Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. Protection of hands: Impervious gloves

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 glove material (in minutes) Not determined Eye protection: Safety glasses Body protection: Protective work clothing.

9 Physical and chemical properties

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Information on basic physical and chemical properties General Information Appearance:			
<sup>°</sup> Form: Color: Odor: Odor threshold:	Powder White to off-white Not determined Not determined.		
pH-value:	Not applicable.		
			(2) (1)

# Product name: (+/-)-Octonamine bydrochloride

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roduct name: (+/-)-Octopamine hyd	Irochloride	
		(Contd. of page 2)
Change in condition		( • • · · · · · · · · · · · · · · · · ·
Melting point/Melting range:	170 °C (338 °F) (dec)	
Boiling point/Boiling range: Sublimation temperature / start:	Not determined Not determined	
Flammability (solid, gaseous)	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:	Not applicable.	
Density: Relative density	Not determined Not determined.	
Vapor density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with Water:	Not determined	
Partition coefficient (n-octanol/water):		
Viscosity: dynamic:	Not applicable.	
kinematic:	Not applicable.	I
Other information	No further relevant information available.	
Or billing and second life,		
Stability and reactivity		
Reactivity No information known. Chemical stability Stable under recomn	nended storage conditions	
Thermal decomposition / conditions to	nended storage conditions. <b>o be avoided:</b> Decomposition will not occur if used and stored according to specifications.	
<b>Possibility of hazardous reactions</b> No	dangerous reactions known	
Conditions to avoid No further relevant Incompatible materials: Oxidizing agen	Information available. Its	
Hazardous decomposition products:		
Carbon monoxide and carbon dioxide Nitrogen oxides		
Possibly Hydrogen cyanide (HCN)		
Toxicological information		
-		
Information on toxicological effects Acute toxicity: Harmful if swallowed.		
LD/LC50 values that are relevant for c		
Skin irritation or corrosion: Causes ski	in irritation.	
Eye irritation or corrosion: Causes ser Sensitization: No sensitizing effects kno	own.	
Germ cell mutagenicity: No effects kno	own.	
Reproductive toxicity: No classification data (	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.	
Specific target organ system toxicity - Aspiration hazard: No effects known.	- single exposure: May cause respiratory irritation.	
Subacute to chronic toxicity: No effect	is known.	
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.	
Ecological information		
Toxicity		
Aquatic toxicity: No further relevant info	ormation available.	
Aquatic toxicity: No further relevant info Persistence and degradability No furth Bioaccumulative potential No further re	er relevant information available. elevant information available	
<b>WODILITY IN SOLL</b> INO TURTNER RELEVANT INFOR	nation available.	
Additional ecological information: General notes:		
Do not allow material to be released to the	he environment without proper governmental permits.	
Do not allow undiluted product or large q	uantities to reach ground water, water course or sewage system.	
Avoid transfer into the environment. Results of PBT and vPvB assessment	,	
PBT: Not applicable.		
vPvB: Not applicable. Other adverse effects No further releva	nt information available	
3 Disposal considerations		
Waste treatment methods		
<b>Recommendation</b> Consult state, local o <b>Uncleaned packagings:</b>	r national regulations to ensure proper disposal.	
Recommendation: Disposal must be ma	ade according to official regulations.	
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Transport information		
UN-Number DOT, ADN, IMDG, IATA	Not applicable	
UN proper shipping name		
DOT, ADN, IMDG, IATA Transport hazard class(es)	Not applicable	
DOT, ADR, ADN, IMDG, IATA		
Class	Not applicable	
		(Contd. on page 4
		USA -

Product name: (+/-)-Octopamine hydrochlor	ide
	(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 MAR	
Transport/Additional information:	
DOT	
Marine Pollutant (DOT): UN "Model Regulation":	No
15 Regulatory information Safety, health and environmental regulations/le GHS label elements The product is classified and Hazard pictograms	egislation specific for the substance or mixture labeled in accordance with 29 CFR 1910 (OSHA HCS)
P305+P351+P338 IF IN EYES: Rinše cautiously w. P304+P340 IF INHALED: Remove person to P405 Store locked up. P501 Dispose of contents/container ir <b>National regulations</b> This product is not listed in the U.S. Environmental	ve clothing/eye protection/face protection. vith water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. o fresh air and keep comfortable for breathing. n accordance with local/regional/national/international regulations. I Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricte ust be used by or directly under the supervision of a technically gualified individual as defined by TSCA. This
SARA Section 313 (specific toxic chemical listir California Proposition 65 Prop 65 - Chemicals known to cause cancer Sul Prop 65 - Developmental toxicity Substance is no Prop 65 - Developmental toxicity, female Substan Prop 65 - Developmental toxicity, male Substance Information about limitation of use: For use only Other regulations, limitations and prohibitive re	ngs) Substance is not listed. bstance is not listed. ot listed. ance is not listed. ce is not listed. y by technically qualified individuals. gulations ding to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. ce 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the ce 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the
information to ensure proper use and protect the he	upplement to other information gathered by them, and should make independent judgement of suitability of this ealth and safety of employees. This information is furnished without warranty, and any use of the product not in or in combination with any other product or process, is the responsibility of the user.
Department issuing SDS: Global Marketing Depa Date of preparation / last revision 11/23/2015 / - Abbreviations and acronyms: RID: Reglement international concernant le transport des marchand ICAO: International Civil Aviation Organization ADR: Accord européen sur le transport des marchandises dangereu IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association EINECS: Europeen Inventory of Existing Commercial Chemical Sub CAS: Chemical Abstracts Service (division of the American Chemical HMIS: Heazrdous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Cana LCS0: Lethal concentration, 50 percent US0: Lethal dose, 50 percent vPuB: very Persistent and very Bioaccumulative ACGIH: American Conference of Governmental Industrial Hygienist: OSHA: Occupational Safety and Health Administration (USA)	artment dises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) uses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) bestances al Society) ada) ts (USA)

IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

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