

Safety Data Sheet per OSHA HazCom 2012

1 Identification Product identifier

| Product identifier |
|--|
| Product name: Clomipramine hydrochloride |
| Stock number: J62485 CAS Number: |
| 17321-77-6 EC number: |
| 241-344-3 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. 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) GHS08 Health hazard |
| |
| Repr. 1A H360 May damage fertility or the unborn child. |
| GHS07 |
| Acute Tox. 4 H302 Harmful if swallowed. Acute Tox. 4 H312 Harmful in contact with skin. |
| Acute Tox. 4 H332 Harmful if inhaled. 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 GHS08 |
| Signal word Danger Hazard statements |
| H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled. H360 May damage fertility or the unborn child. Precautionary statements |
| P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. |
| P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P281 Use personal protective equipment as required. 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. WHMIS classification |
| D2A - Very toxic material causing other toxic effects |
| |
| Classification system HMIS ratings (scale 0-4) |
| (Hazardous Materials Identification System) |
| HEALTH 2 Health (acute effects) = 2 FIRE 1 Flammability = 1 REACTIVITY 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: 17201-77.6 3. Objets: 10.11 dibudge N.N. dimethul 5H dibert/h florening |
| 17321-77-6 3 ⁻ Chloro-10,11-dihydro-N,N-dimethyl-5H-dibenz[b,f]azepine- 5-propanamine hydrochloride Identification number(s): |
| EC number: 241-344-3 ´ USA USA |
| (Contd. on page 2 |

| Product name: Clomipramine hydrochloride | |
|--|--------------------|
| | (Contd. of page 1) |
| 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. 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. | |
| 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 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. Open and handle container with care. 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. | |
| 8 Exposure controls/personal protection Additional information about design of technical systems: Properly operating chemical tume 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 Personal protective and hygienic measures The usual protective and hygienic measures The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all solied and contaminated clothing immediately. Wash hands before breaks and at the end of work. Store protective clothing separately. Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment. Breathing equipment: Use a respirator with high concentrations are present. Recommended filter device for short term use: Use a respirator with high concentrations are proved 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. Penetration time of glove material (in minutes). Not determined Eye protection: Safety glasses Body protection: Protective work clothing. Eve protection: Protection of suitable gloves not only depends on the material, but a | termine if air- |

Product name: Clomipramine hydrochloride

Page 3/4 Printing date 11/24/2015 Reviewed on 05/22/2014

(Contd. of page 2)

9 Physical and chemical properties Information on basic physical and chemical properties General Information Appearance: 'Form: Color: Powder White to off-white Odor: Not determined Odor threshold: Not determined pH-value: Not applicable. Change in condition Melting point/Melting range: 189-190 °C (372-374 °F) Not determined Boiling point/Boiling range: Sublimation temperature / start: Flammability (solid, gaseous) Not determined Not determined Ignition temperature: Decomposition temperature: Not determined Not determined Auto igniting: Not determined Danger of explosion: Explosion limits: Lower: Not determined. Not determined Upper: Not determined Vapor pressure: Density: Relative density Not applicable. Not determined Not determined. Vapor density Evaporation rate Solubility in / Miscibility with Not applicable. Not applicable. Water: Partly soluble Partition coefficient (n-octanol/water): Not determined. Viscosity: dynamic: Not applicable. Not applicable. kinematic: Other information No further relevant information available. 10 Stability and reactivity Reactivity No information known. 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 Reacts with strong oxidizing agents Conditions to avoid No further relevant information available. Incompatible materials: Oxidizing agents Hazardous decomposition products: Carbon monoxide and carbon dioxide Nitrogen oxides Hydrogen chloride (HCl) 11 Toxicological information Information on toxicological effects Acute toxicity: Harmful if inhaled. Harmful in contact with skin. Harmful if swallowed. Danger through skin absorption. The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance. LD/LC50 values that are relevant for classification: Oral LD50 470 mg/kg (mouse) 914 mg/kg (rat) Skin irritation or corrosion: May cause irritation Eye irritation or corrosion: May cause irritation Sensitization: No sensitizing effects known. Sensitization: No sensitizing effects known. Germ cell mutagenicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for this substance. Carcinogenicity: No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH. Reproductive toxicity: May damage fertility or the unborn child. The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance. Specific target organ system toxicity - repeated exposure: No effects known. Specific target organ system toxicity - single exposure: No effects known. Aspiration hazard: No effects known. Subacute to chronic toricity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substances. Subacute to chronic toxicity: The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance. 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 information available. Persistence and degradability No further relevant information available. Bioaccumulative potential No further relevant information available. Mobility in soil No further relevant information available. **General notes:** Do not allow product to reach ground water, water course or sewage system. Do not allow material to be released to the environment without proper governmental permits. Danger to drinking water if even small quantities leak into the ground. Avoid transfer into the environment. Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. Other adverse effects No further relevant information available.

13 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.

| 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 | |
| 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": | <u>-</u> | |

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 GHS08

Signal word Danger Hazard statements

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

May damage fertility or the unborn child. H360

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P405 Store locked up.
P501 Dispose of contents/contained in a superior

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations

National regulations All components of this product are listed on the Canadian Domestic Substances List (DSL). 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. 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, 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 Although this chemical may sometimes be used as a food or drug or cosmetic, our products are not approved or suitable for such use or for human consumption. Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006. Substance is not listed. The conditions of restrictions

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.

conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the use Department issuing SDS: Global Marketing Department 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 EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Information System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent LD50: Lethal dose, 50 percent ACGIH: American Colference of Governmental Industrial Hygienists (USA) OSHA: Occupational Safety and Health Administration (USA) MTP: National Toxicology Program (USA) IARC: International Agency for Research on Cancer EPA: Environmental Protection Agency (USA)

(Contd. of page 3)