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Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.01.2014 Version number 20 Revision: 22.01.2014 SECTION 1: Identification of the substance/mixture and of the company/undertaking · 1.1 Product identifier • Molecular formula: Cl H2 Hg N • Structure formula: Hg (N H2) Cl • Trade name: Mercury(II) amidochloride MSDS number: CH0337 · CAS Number: 10124-48-8 · EC number: 233-335-8 · Index number: 080-002-00-6 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available. · Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites SU9 Manufacture of fine chemicals SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys) SU24 Scientific research and development · Product category PC19 Intermediate PC20 Products such as ph-regulators, flocculants, precipitants, neutralization agents PC21 Laboratory chemicals PC29 Pharmaceuticals PC39 Cosmetics, personal care products PC40 Extraction agents · Process category *PROC1* Use in closed process, no likelihood of exposure *PROC2* Use in closed, continuous process with occasional controlled exposure *PROC3* Use in closed batch process (synthesis or formulation) *PROC4* Use in batch and other process (synthesis) where opportunity for exposure arises PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact) PROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC15 Use as laboratory reagent · Environmental release category ERC1 Manufacture of substances ERC2 Formulation of preparations ERC4 Industrial use of processing aids in processes and products, not becoming part of articles ERC6a Industrial use resulting in manufacture of another substance (use of intermediates) · Application of the substance / the mixture Chemical products for laboratory • 1.3 Details of the supplier of the safety data sheet · Manufacturer/Supplier: CARLO ERBA REAGENTS Chaussée du Vexin Parc d'Affaires des Portes - BP616 27106 VAL DE REUIL Cedex Téléphone: +02 32 09 20 00 Télécopie: +02 32 09 20 20 · Further information obtainable from: Q.A / Normative email: MSDS CER-SDS@cer.dgroup.it (Contd. on page 2) GB



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Frade name: Mercury	(II) amidochloride	
	ephone number: 24h/24) - Tel : +33 (0)1 45 42 59 59 253 1 8092568 - 00 353 1 8379964 (24h/24)	(Contd. of page
SECTION 2: H	lazards identification	
	of the substance or mixture ording to Regulation (EC) No 1272/2008	
GHS06	skull and crossbones	
Acute Tox. 2	H300 Fatal if swallowed.	
Acute Tox. 1	H310 Fatal in contact with skin.	
Acute Tox. 2	H330 Fatal if inhaled.	
GHS08	health hazard	
STOT RE 2	H373 May cause damage to organs through prolonge	ed or repeated exposure.
<i>Aquatic Acute 1</i>	environment H400 Very toxic to aquatic life.	
	H410 Very toxic to aquatic life with long lasting effect	ts.
• Classification acc T+; Very tox	ording to Directive 67/548/EEC or Directive 1999/45/E	EC
R26/27/28: Very	v toxic by inhalation, in contact with skin and if swallow	ved.
N; Dangerou	s for the environment	
	v toxic to aquatic organisms, may cause long-ter ronment.	m adverse effects in the aquati
• Information conc The product has to Substances of the	ger of cumulative effects. crning particular hazards for human and environment b be labelled due to the calculation procedure of the "(EU", DIR. 67/548/EC, in the latest valid version, c arations of the EU", DIR. 99/45/EC, in the latest valid v	General Classification guideline f and of the "General Classificatio
· 2.2 Label element · Labelling accordi	s 1g to Regulation (EC) No 1272/2008 assified and labelled according to the CLP regulation.	
GHS06 GHS08	3 GHS09	
2		
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(Contd. of page 2) · Signal word Danger · Hazard statements H300+H310+H330 Fatal if swallowed, in contact with skin or if inhaled. H373 May cause damage to organs through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects. · Precautionary statements Wash thoroughly after handling. *P264* P273 Avoid release to the environment. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection. P284 [In case of inadequate ventilation] wear respiratory protection. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. · 2.3 Other hazards -· Results of PBT and vPvB assessment · **PBT:** Not applicable. · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.1 Chemical characterization: Substances

- CAS No. Description 10124-48-8 Mercury(II) amidochloride
- · Identification number(s)
- · EC number: 233-335-8
- · Index number: 080-002-00-6

SECTION 4: First aid measures

• 4.1 Description of first aid measures

• General information:

Remove immediately any clothing soiled by the product and wash with plenty of water. The rescuer has to be equipped with individual protection

Remove breathing equipment only after contaminated clothing have been completely removed. In case of irregular breathing or respiratory arrest provide artificial respiration.

- After inhalation:
- Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

- After skin contact:
- Immediately wash with water and soap and rinse thoroughly. Wash contaminated clothing before reuse.
- *After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.*
- After swallowing:

Do not induce vomiting; call for medical help immediately.

- Induce vomiting and call for medical help.
- 4.2 Most important symptoms and effects, both acute and delayed metallic taste.
- Information for doctor: Show the doctor this Material Safety Data Sheet.
- 4.3 Indication of any immediate medical attention and special treatment needed
- B.A.L. (British Anti Lewisite)

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SECTION 5: Firefighting measures

· General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

- 5.1 Extinguishing media
- Suitable extinguishing agents:
- CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced. Nitrogen oxides (NOx)

In case of fire, the following can be released:

Formation of toxic gases is possible during heating or in case of fire.

Hydrogen chloride (HCl)

Fumes with metal oxides. In the absence of oxygen: Ammonia (NH)

• 5.3 Advice for firefighters

• Protective equipment:

In closed rooms wear a self contained breathing apparatus.

- Do not inhale gases in case or fire or combustion.
- · Additional information Keep receptacles cool with water spray.

SECTION 6: Accidental release measures

• General Information: Use proper personal protective equipment as indicated in Section 8.

- · 6.1 Personal precautions, protective equipment and emergency procedures
- *If dust/ aerosols is formed, use personal protective equipment.*
- 6.2 Environmental precautions:
- Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

- · 6.3 Methods and material for containment and cleaning up:
- Pick up mechanically.

Ensure adequate ventilation.

Send for recovery or disposal in suitable containers.

Dispose contaminated material as waste according to item 13.

For fine dusts use a vacuum cleaner.

• **6.4 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.

SECTION 7: Handling and storage

• 7.1 Precautions for safe handling

Avoid formation of dust and aerosols. Adopt adequate ventilation at places where you develop dust. Thorough dedusting. Open and handle receptacle with care.

- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles:

Use polyethylene receptacles.

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Unsuitable material for receptacle: aluminium.

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

· Information about storage in one common storage facility:

Not required.

in particolare: iodio.

• Further information about storage conditions: Keep receptacle tightly sealed.

• 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

• Additional information about design of technical facilities: Safety shower and eye bath. Mechanical exhaust required. No further data; see item 7.

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace: TLV not established.

· DNELs		
Oral	LD50	86 mg/kg (rat)
Dermal	LD50	1325 mg/kg (rat)
Inhalative	DNEL (workers-local effects Acute)	(96h Hg++) 0.06 mg/m3 (Daphnia)
		(96h Hg++) 0.22 mg/m3 (fishes)
· Ingredient	s with biological limit values:	
10124-48-	8 Mercury(II) amidochloride (>80%))
BMGV (Gr	reat Britain) 20 µmol/mol creatinine Medium: urine Sampling time: random Parameter: mercury	
	information: The lists valid during t	the making were used as basis.

· 8.2 Exposure controls

· Personal protective equipment:

In case of making of powders or aerosol, use an aqualung with approved filter. For a short period use a filtering apparatus suitable for the danger

• General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Store protective clothing separately. Avoid contact with the skin.

• Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Filter P3, in case of dust-producing handlings. Maschera con filtro per vapori di mercurio da tenere a disposizione

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Version number 20 Revision: 22.01.2014 Printing date 22.01.2014 Trade name: Mercury(II) amidochloride (Contd. of page 5) · Protection of hands: The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it. Protective gloves Rubber gloves · Material of gloves The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. Thin, disposable gloves in PVC or PE • Penetration time of glove material The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed. For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable: Thin, disposable gloves in PVC or PE • For the permanent contact gloves made of the following materials are suitable: Thin, disposable gloves in PVC or PE For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable: Thin, disposable gloves in PVC or PE • As protection from splashes gloves made of the following materials are suitable:

- Thin, disposable gloves in PVC or PE
- Not suitable are gloves made of the following materials: Thin, disposable gloves in PVC or PE
- · Eye protection: -
- · Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

Molecular weight	252.07 g	
· Appearance:		
Form:	Crystalline powder	
Colour:	Whitish	
· Odour:	Odourless	
· Odour threshold:	Not determined.	
· pH-value:	Not applicable.	
· Change in condition		
Melting point/Melting range:	300 °C	
Boiling point/Boiling range:	Undetermined.	
· Flash point:	Not applicable.	
Flammability (solid, gaseous):	Product is not flammable.	
Ignition temperature:	·	
Decomposition temperature:	Not determined.	
Self-igniting:	Not determined.	
Danger of explosion:	Product does not present an explosion hazard.	

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Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapour pressure:	Not applicable.	
Density at 20 °C:	$4.5 g/cm^3$	
Bulk density at 20 °C:	450 kg/m ³	
Relative density	Not determined.	
Vapour density	Not applicable.	
· Evaporation rate	Not applicable.	
Solubility in / Miscibility with		
water:	Not determined.	
organic solvents:	Insoluble	
· Partition coefficient (n-octanol	/water): Not determined.	
· Viscosity:	<i>`</i>	
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
• 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions

Reacts with peroxides and other radical forming substances. Catalytic decomposition of hydrogen peroxide.

- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials:
- Chetens
- acetylen
- 10.6 Hazardous decomposition products:
- *Toxic metal oxide smoke Hydrogen chloride (HCl)*
- Nitrogen oxides (NOx)

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:
- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No relevant irritating effects.
- · Ingestion: It can be harmfull if swallowed.
- · Inhalation:
- Inhalation may result in spasm, inflammation and edema of the larynxand bronchi, chemical pneumonitis, and pulmonary edema.
- *Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Sensitization: No sensitizing effects known.*
- Other information (about experimental toxicology): No more relevant data available.

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· Additional toxicological information: Danger through skin adsorption.

SECTION 12: Ecological information

· 12.1 Toxicity

- Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · Method
- · Ecological information Not available
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- Remark: Very toxic for fish
- · Remark: Inhibition of bacterial phlora
- · Additional ecological information:

· General notes:

Water danger class 3 (German Regulation) (Assessment by list): extremely hazardous for water Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground. Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

- 12.5 Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Reutilise if possible or contact a waste processors for recycling or safe disposal.

• Waste disposal key:

The European Union does not establish uniform rules for the disposal of chemical waste, which are special waste. Their treatment and elimination of the domestic legislation of each country. So, in each case, you should contact the relevant authorities, or those companies legally authorized for elimination of waste. 2001/573/EC: Council Decision of 23 July 2001 amending the list of wastes contained in Decision 2000/532/ EC.

Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

• Uncleaned packaging:

The containers and packing materials contaminated with dangerous substances or preparations, have the same treatment products.

Directive 94/62/EC of the European Parliament and the Council of 20 December 1994 on packaging and packaging waste.

· Recommendation:

Disposal must be made according to official regulations.

Packagings that may not be cleansed are to be disposed of in the same manner as the product. Wash with water to be treated before disposal.

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UN1630
UN1630 MERCURY AMMONIUM CHLORIDE, ENVIRONMENTA HAZARDOUS
MERCURY AMMONIUM CHLORIDE, MARINE POLLUTANT MERCURY AMMONIUM CHLORIDE
6.1 (T5) Toxic substances. 6.1
0.1
6.1 Toxic substances.
6.1
6.1 Toxic substances.
6.1
II
Environmentally hazardous substance, solid; Marine Pollutant Yes (PP) Yes (P) Symbol (fish and tree) Symbol (fish and tree)
<i>r</i> Warning: Toxic substances.
60
<i>F-A,S-A</i> <i>Ammonium compounds, heavy metals and their salts (including t organometallic compounds), mercury and mercury compounds</i>
<i>m</i> :
E4 500 g
2 500 g



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according to 1907/2006/EC, Article 31 Version number 20 Revision: 22.01.2014 Printing date 22.01.2014 Trade name: Mercury(II) amidochloride (Contd. of page 9) · Tunnel restriction code D/EUN1630, MERCURY AMMONIUM CHLORIDE, ENVIRONMENTALLY · UN "Model Regulation": HAZARDOUS, 6.1, II **SECTION 15: Regulatory information** 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture · Labelling according to Regulation (EC) No 1272/2008 The substance is classified and labelled according to the CLP regulation. · Hazard pictograms GHS06 GHS08 GHS09 · Signal word Danger · Hazard statements H300+H310+H330 Fatal if swallowed, in contact with skin or if inhaled. H373 May cause damage to organs through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects. · Precautionary statements P264 Wash thoroughly after handling. P273 Avoid release to the environment. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection. P284 [In case of inadequate ventilation] wear respiratory protection. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. · National regulations: · Information about limitation of use: -• Technical instructions (air): Class Share in % Ι 100.0 • Waterhazard class: Water danger class 3 (Assessment by list): extremely hazardous for water. • 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out. **SECTION 16: Other information** This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. · Department issuing MSDS: Q.A./Normative · Contact: ITALY: email: MSDS-CER@carloerbareagenti.com Phone: 00 39 02 953251 FRANCE: email: MSDS CER-SDS@carloerbareactifs.com

Phone: +02 32 09 20 00 **References** ECDIN (Environmental Chem. Data and Information Network) IUCLID (International Uniform Chemical Information Database)

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Version number 20 Revision: 22.01.2014 Printing date 22.01.2014 Trade name: Mercury(II) amidochloride (Contd. of page 10) NIOSH - Registry of Toxic Effects of Chemical Substances Roth - Wassergefährdende Stoffe Verschueren - Handbook of Environmental Data on Organic Chemicals ChemDAT - Safety Data Sheets from E.Merck on CD-ROM Merian - Metals and their compounds in the environment · Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organization ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association PP: Severe Marine Pollutant P: Marine Pollutant GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (REACH) · Sources DIR. 67/548/EC, in the latest valid version. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006, REACH. Regulation (EC) N° 1272/2008 of the European Parliament and of the Council of 16 December 2008, CLP, in the latest valid version. Globally Harmonized System, GHS ADR 2013 GB (Contd. on page 12)



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Annex: Exposure scenario · Short title of the exposure scenario Chemical products for laboratory · Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites SU9 Manufacture of fine chemicals SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys) SU24 Scientific research and development · Product category PC19 Intermediate PC20 Products such as ph-regulators, flocculants, precipitants, neutralization agents PC21 Laboratory chemicals PC29 Pharmaceuticals PC39 Cosmetics, personal care products PC40 Extraction agents · Process category PROC1 Use in closed process, no likelihood of exposure PROC2 Use in closed, continuous process with occasional controlled exposure PROC3 Use in closed batch process (synthesis or formulation) PROC4 Use in batch and other process (synthesis) where opportunity for exposure arises PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact) PROC9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC15 Use as laboratory reagent · Environmental release category ERC1 Manufacture of substances ERC2 Formulation of preparations ERC4 Industrial use of processing aids in processes and products, not becoming part of articles *ERC6a* Industrial use resulting in manufacture of another substance (use of intermediates) · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet. · Conditions of use According to directions for use. · Duration and frequency 5 workdays/week. · Physical parameters • **Physical state** Solid · Concentration of the substance in the mixture Raw material. · Used amount per time or activity According to directions for use. Smaller than 100 g per application. · Other operational conditions · Other operational conditions affecting environmental exposure Use only on hard ground. Observe section 6 of the Safety Data Sheet (Accidental release measures). · Other operational conditions affecting worker exposure Avoid contact with the skin. Avoid breathing particles. • Other operational conditions affecting consumer exposure Keep out of the reach of children. • Other operational conditions affecting consumer exposure during the use of the product Not applicable. · Risk management measures · Worker protection · Organisational protective measures No special measures required. Keep good industrial hygiene.

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Version number 20 Revision: 22.01.2014 Printing date 22.01.2014 Trade name: Mercury(II) amidochloride (Contd. of page 12) • Technical protective measures Use product only in enclosed systems. Ensure that suitable extractors are available on processing machines · Personal protective measures Do not inhale dust / smoke / mist. Avoid contact with the skin. In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Filter P3, in case of dust-producing handlings. Maschera con filtro per vapori di mercurio da tenere a disposizione The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it. *Protective gloves* Rubber gloves · Measures for consumer protection Ensure adequate labelling. Keep locked up and out of the reach of children. · Environmental protection measures · Water Do not allow to reach sewage system. · Soil Prevent contamination of soil. · Disposal measures Disposal must be made according to official regulations. Ensure that waste is collected and contained. · Disposal procedures Must not be disposed together with household garbage. Do not allow product to reach sewage system. · Waste type Partially emptied and uncleaned packaging · Exposure estimation · Consumer Not relevant for this Exposure Scenario. • Guidance for downstream users No further relevant information available.