

Safety Data Sheet

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Classification according to Regulation (EC) No. 1272/2008 [CLP]

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product code	22980
Product name	1-ETHYL-3-(3-DIMETHYLAMINOPROPYL)CARBODIIMIDE. HCl (EDC)
Unique Formula Identifier (UFI)	Not Applicable
Chemical Name	Not Applicable
REACH registration number	No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	For research use only
Use Description Code	SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen), PROC15 - Use as laboratory reagent, PC21 - Laboratory chemicals, SU24 - Scientific research and development
Uses advised against	Not for consumer use.

Details of the supplier of the safety data sheet

Manufacturer / Supplier

LIFE TECHNOLOGIES EUROPE BV
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2665 NN BLEISWIJK
NETHERLANDS
31-(0)180 392 400
Email: MSDS@lifetech.com

Life Technologies Limited
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Inchinnan Business Park
Paisley
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+44 (0)141 814 6100

Thermo Fisher Scientific
Pierce Biotechnology
P.O. Box 117
Rockford, IL 61105
United States
1.815.968.0747 or
1.800.874.3723

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Emergency telephone number

24 hour Emergency Response for Hazardous Materials Within the USA + Canada: 1-800-424-9300 and
[or Dangerous Goods] Incident. Spill, Leak, Fire, 1-703-527-3887
Exposure, or Accident. Call CHEMTREC Outside the USA + Canada: 1-703-741-5970

Country Specific Emergency Number (if available):

CHEMTREC Ireland (Dublin) +(353)-19014670 (Greeting Language: English and Irish)

CHEMTREC UK (London) +(44)-870-8200418 (Greeting Language: English)

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Physical hazards

Not Hazardous

Health hazards

Acute oral toxicity	Category 4
Acute dermal toxicity	Category 3
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitiser	Category 1
Specific target organ toxicity - Repeated exposure	Category 2

Environmental hazards

Acute aquatic toxicity	Category 1
Chronic aquatic hazard	Category 1

Additional information

No information available

Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms



Signal Word

Danger

Hazard Statements

H302 - Harmful if swallowed

H311 - Toxic in contact with skin

H315 - Causes skin irritation

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H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H373 - May cause damage to organs through prolonged or repeated exposure
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

Prevention

P264 - Wash hands thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P273 - Avoid release to the environment
P270 - Do not eat, drink or smoke when using this product
P272 - Contaminated work clothing should not be allowed out of the workplace

Response

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P314 - Get medical advice/attention if you feel unwell
P391 - Collect spillage
P330 - Rinse mouth
P312 - Call a POISON CENTER or doctor/physician if you feel unwell
P332 + P313 - If skin irritation occurs: Get medical advice/attention

Storage

Not Applicable

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Other hazards

This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

Substances

Chemical Name	CAS No	EINECS-No.	Weight-%	REACH registration number	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N, N-dimethyl-, monohydrochloride	25952-53-8	-	98-100	-	Acute Tox. 4 - H302 Acute Tox. 3 - H311 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT RE 2 - H373 Aquatic Acute 1 -H400 Aquatic Chronic 1 - H410

Chemical Name	Specific concentration limit (SCL)	M-Factor	Acute Toxicity Estimate
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl-, monohydrochloride	-	-	-

SECTION 4: First aid measures

Description of first aid measures

Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Immediate medical attention is required.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Call a doctor or poison control centre immediately.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a doctor.
Notes to Physician	Treat symptomatically.

Most important symptoms and effects, both acute and delayed

H302 - Harmful if swallowed H311 - Toxic in contact with skin H315 - Causes skin irritation H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation H373 - May cause damage to organs through prolonged or repeated exposure H410 - Very toxic to aquatic life with long lasting effects

Indication of any immediate medical attention and special treatment needed

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. If skin irritation occurs: Get medical advice/ attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF exposed or concerned: Get medical advice/attention.

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SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media

No information available.

Special hazards arising from the substance or mixture No data**Hazardous Combustion Products**

No known hazardous decomposition products.

Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Avoid contact with skin, eyes or clothing

Use personal protection equipment

Always wear recommended Personal Protective Equipment

See section 8 for more information

Environmental precautions

Prevent product from entering drains. Do not allow material to contaminate ground water system.

Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Reference to other sections

See section 8 for more information.

SECTION 7: Handling and storage

Precautions for safe handling

Always wear recommended Personal Protective Equipment. See section 8 for more information. Do not get in eyes, on skin, or on clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use adequate ventilation and/or wear appropriate respirator.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feedingstuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers. Store in accordance with local regulations.

Specific end use(s)

For research use only.

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SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	EU OEL (TWA)	EU OEL (STEL)	EU Skin Notation
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl, monohydrochloride 25952-53-8	None	None	None

Chemical Name	Austria	Belgium (TWA)	Czech Republic
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl, monohydrochloride 25952-53-8	None	None	None

Chemical Name	Denmark (TWA)	Finland OEL (TWA)	France OEL (VME)
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl, monohydrochloride 25952-53-8	None	None	None

Chemical Name	Germany OEL (TWA)	Ireland (TWA)	Italy OEL (TWA)
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl, monohydrochloride 25952-53-8	None	None	None

Chemical Name	Lithuania OEL (TWA)	Netherlands OEL (MAC)	Norway
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl, monohydrochloride 25952-53-8	None	None	None

Chemical Name	Poland	Portugal	Spain OEL (TWA)
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl, monohydrochloride 25952-53-8	None	None	None

Chemical Name	Sweden - Occupational Exposure Limits - TLVs (LLVs)	Switzerland	United Kingdom
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl, monohydrochloride 25952-53-8	None	None	None

Derived No Effect Level (DNEL)

See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl, monohydrochloride 25952-53-8 (98-100)	None	None	None	DNEL = 0.467mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
1,3-Propanediamine,	None	DNEL = 1.64mg/m ³	None	DNEL = 1.64mg/m ³

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N-(ethylcarbonimidoyl)-N,N-dimethyl-, monohydrochloride 25952-53-8 (98-100)				
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Predicted No Effect Concentration (PNEC)

See table for values

Chemical Name	Fresh water sediment	Fresh water	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl-, monohydrochloride 25952-53-8	None	None	PNEC = 0.46mg/L	PNEC = 10mg/L	None

Component	Marine water	Marine water sediment	Marine water Intermittent	Food chain	Air
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl-, monohydrochloride 25952-53-8 (98-100)	PNEC = 0.00046mg/L	None	PNEC = 0.046mg/L	None	None

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal protection equipment

Respiratory protection

In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

Hand protection

Gloves must be inspected prior to use.
Suitable material: Nitrile
Minimum layer thickness: 0.11mm
Break through time: 480 min

Eye protection

Tight sealing safety goggles.

Skin and Body Protection

Wear laboratory coat for body protection.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feedingstuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and immediately after handling the product.

Environmental exposure controls

Prevent product from entering drains. Do not allow material to contaminate ground water system.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	powder	
Colour	No information available	
Odour	No data	
Odour Threshold	No data	
Molecular Weight	No data	
Melting point / melting range	°C No data	°F No data
Boiling point / boiling range	°C No data	°F No data
Flammability (solid, gas)	No data	
Lower explosion limit	No data	
Upper explosion limit	No data	
Flash point	°C No data	°F No data
Autoignition Temperature	°C No data	°F No data
Decomposition temperature	°C No data	°F No data
pH	No data	
Evaporation rate	No data	
Viscosity	No data	
Solubility	No data	
Partition coefficient: n-octanol/water	No data	
Vapour Pressure	No data	
Specific gravity	No data	
Relative density	No data	
Vapour density	No data	
Explosive properties	No data	
Oxidising properties	No data	
Particle characteristics	No data	

Other information

Information with regards to physical hazard classes

No information available

Other safety characteristics

No information available

SECTION 10: Stability and reactivity

Reactivity	None known.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Hazardous reaction has not been reported.
Conditions to avoid	None known.
Incompatible materials	No dangerous reaction known under conditions of normal use.
Hazardous decomposition products	No known hazardous decomposition products.

SECTION 11: Toxicological information

Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information Harmful if swallowed Toxic in contact with skin

Acute Toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl-, monohydrochloride	50 - 300 mg/kg (Rat)	200 - 1000 mg/kg(Rat)	No data available

Principal Routes of Exposure

Skin corrosion/irritation Skin irritation

Serious eye damage/irritation Irritating to eyes

Respiratory or skin sensitisation May cause sensitisation by skin contact

Specific target organ toxicity (STOT) – single exposure Data are conclusive but insufficient for classification

Specific target organ toxicity (STOT) – repeated exposure May cause damage to organs through prolonged or repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive Toxicity Data are conclusive but insufficient for classification

Aspiration Hazard Data are conclusive but insufficient for classification

Information on other hazards

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

SECTION 12: Ecological information

Toxicity

Hazardous to the Aquatic Environment.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl-, monohydrochloride	No data available	No data available	No data available	No data available	logPow-2.98

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Mobility in soil No information available.

Results of PBT and vPvB assessment No information available.

Endocrine disrupting properties

This product does not contain any known or suspected endocrine disruptors

Other adverse effects

Persistent Organic Pollutant This product does not contain any known or suspected substance

Ozone depletion potential (ODP) This product does not contain any known or suspected substance

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Classified as dangerous in the meaning of transport regulations

UN number or ID number	2811
UN proper shipping name	Toxic solid, organic, n.o.s. (1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride)
Transport hazard class(es)	6.1
Packing group	III

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Environmental hazards

yes

Special precautions for user

Not Applicable

Maritime transport in bulk according to IMO instruments

Not Applicable.

SECTION 15: Regulatory information**Safety, health and environmental regulations/legislation specific for the substance or mixture****Substances of Very High Concern**

None

Substance subject to authorisation per REACH Annex XIV

None

Restricted substances under EC 1907/2006, Annex XVII

None

Regulation (EC) No 649/2012 (Rotterdam Convention - export/import of dangerous chemicals)

None

Regulation (EU) No 2019/1021 (Stockholm Convention – persistent organic pollutants)

None

EU - Substances Depleting the Ozone layer (1005/2009)

None

German Water hazard classes (Wassergefährdungsklassen)

Chemical Name	Weight-%	Water hazard class (WGK)
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl-, monohydrochloride	98-100	hazard class 3 - highly hazardous to water

Other International Inventories

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Chemical Name	EINECS (European Union)	ELINCS (European List of Notified Chemical Substances)	ENCS (Japan)	PICCS (Philippines)
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl-, monohydrochloride	Listed	-	Listed	-

Chemical Name	AICS (Australia)	South Korea (KECL)	Canada (DSL)	NDSL
1,3-Propanediamine, N-(ethylcarbonimidoyl)-N,N-dimethyl-, monohydrochloride	Listed	-	Listed	-

Chemical safety assessment

No Chemical safety assessment has been carried out.

SECTION 16: Other information

Reason for revision Update according to Commission Regulation EU No. 2020/878
Revision number 14
Revision date 26-Jun-2024

References

- ECHA: <http://echa.europa.eu/>
- TOXNET: <http://toxnet.nlm.nih.gov/>
- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Acute oral toxicity	Category 4	Calculation method
Acute dermal toxicity	Category 3	Calculation method
Skin corrosion/irritation	Category 2	Calculation method
Serious eye damage/eye irritation	Category 2	Calculation method
Skin sensitiser	Category 1	Calculation method
Specific target organ toxicity - Repeated exposure	Category 2	Calculation method
Acute aquatic toxicity	Category 1	Calculation method
Chronic aquatic hazard	Category 1	Calculation method

Abbreviations and acronyms

TWA - Time-Weighted Average
OELs - Occupational Exposure Limits
STEL - Short Term Exposure Limit
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
KECL - Korean Existing and Evaluated Chemical Substances
ENCs - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
CEPA - Canadian Environmental Protection Act
EPA - Environmental Protection Agency
OSHA - Occupational Safety and Health Administration of the US Department of Labour
IATA - International Air Transport Association
DOT - Department of Transportation
IMDG - International Maritime Dangerous Goods
ACGIH - American Conference of Governmental Industrial Hygienists
NIOSH - National Institute for Occupational Safety and Health
AIHA - American Industrial Hygiene Association
HMIS - Department of Defense Hazardous Materials Information System
NTP - National Toxicology Program
IARC - International Agency for Research on Cancer

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006.

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"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"