

# Syntor Fine Chemicals Ltd

## Material Safety Data Sheet



### 1. IDENTIFICATION OF THE SUBSTANCE PREPARATION AND COMPANY

<b>1.1 Product identifier:</b>	2-(Diethylamino)ethyl chloride hydrochloride solution
<b>Synonyms:</b>	1-chloro-2-(diethylamine)ethanehydrochloride
<b>REACH Note&gt;</b>	This substance has been registered as a transported isolated intermediate and to the best of our knowledge the acute and chronic toxicity of this substance is not fully known. REACH reference number: 01-2119989645-17-0000
<b>Recommended uses:</b>	Intermediate in chemical manufacture
<b>Uses advised against</b>	No information available
<b>1.3 Detail of supplier:</b>	Syntor Fine Chemicals Ltd 11 Boleyn Court Manor Park Runcorn WA7 1SR
<b>1.4 Emergency Telephone:</b>	+44 (0) 7720 149 777 Fax: +44 (0) 1928 579 734 e-mail: <a href="mailto:mr@syntor.co.uk">mr@syntor.co.uk</a> <a href="http://www.syntor.co.uk">www.syntor.co.uk</a>

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance:

##### Classification of substances according to 67/548/EEC:

 T toxic  C Corrosive  
R25 Toxic if swallowed.  
R34 Causes burns.  
R41 Risk of serious damage to eyes  
R68 Possible risk of irreversible effects

##### Classification of substance according to CLP, 1272/2008/EC:

3.1 Cat 3 H301 Toxic if swallowed  
3.2 Cat 1 H314 Causes severe skin burns and eye damage  
3.3 Cat 1 H318 Causes serious eye damage  
3.5 Cat 2 H341 Suspected of causing genetic defects

#### 2.2 Label element:



#### Signal word:

**Danger**

#### Hazard / Precautionary Statements:

H301 Toxic if swallowed  
H314 Causes severe skin burns and eye damage  
H318 Causes serious eye damage  
H341 Suspected of causing genetic defects  
P202 Do not handle until all safety precautions have been read and understood.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P 301 + 310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304 + 340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
P308 IF exposed or concerned:  
P310 Immediately call a POISON CENTER or doctor/physician.

#### 2.3 Other Hazards:

##### Results of PBT and vPvB assessment

**PBT:**

Not applicable

**vPvB:**

Not applicable

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.1 Substances:

<b>Ingredient name:</b>	2-(Diethylamino)ethyl chloride hydrochloride 65% aqueous solution
<b>CAS No.:</b>	869-24-9
<b>EINECS No:</b>	212-786-4
<b>Molecular formula:</b>	C6H14ClN
<b>Molecular weight:</b>	172.10

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures:

**General information:** Instantly remove any clothing soiled by the product.  
Remove breathing apparatus only after soiled clothing has been completely removed.

**Inhalation:** Supply fresh air. If required, provide artificial respiration. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance. Keep patient warm.  
Consult doctor if symptoms persist.

**Skin contact:** Instantly wash with water and soap and rinse thoroughly.  
Seek immediate medical advice.

**Eye contact:** Rinse opened eye for several minutes under running water. Then consult doctor.

**Swallowing:** Do not induce vomiting. Never give anything by mouth to an unconscious person.  
Seek immediate medical advice.

**4.2 Most important symptoms and effects, both acute and delayed:** No further relevant information available.

**4.3 Indication of immediate medical attention and special treatment needed:** No further relevant information available.

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## 5. FIRE-FIGHTING MEASURES

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**5.1 Extinguishing Media:**  
**Suitable extinguishing agents:** Use carbon dioxide, sand or extinguishing powder or water jet. For larger fire use water jet or alcohol resistant foam.

**For safety reasons unsuitable extinguishing media:** None

**5.2 Special hazards caused by the material, its products of combustion or flue gases:** Can be released in case of fire. Carbon monoxide and carbon dioxide.  
Nitrogen Oxides (NOx), Hydrogen Chloride (HCl)

**5.3 Precautions for fire fighters:** Wear self-contained breathing apparatus. Wear full protective suit.

**5.4 Further information:** Use water spray to cool unopened containers

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## 6. ACCIDENTAL RELEASE MEASURES

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**6.1 Personal precautions, protective equipment and emergency procedures:** Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation.

**6.2 Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.  
Discharge into the environment must be avoided. Do not allow material to be released to the environment without proper governmental permits

**6.3 Methods and materials for containment and cleaning up:** Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**6.4 Reference to other sections:** Dispose of contaminated material according to local / national regulations.  
See section 13.

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## 7. HANDLING AND STORAGE

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**7.1 Precautions for safe handling:** Avoid exposure - obtain special instructions before use. Keep containers tightly sealed. Store in cool, dry place in tightly closed containers.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle container with care.

**7.2 Conditions for safe storage, including any incompatibilities:** Keep ignition sources away – Do not smoke.  
Store in cool location. Store away from oxidizing agents.  
Keep container tightly sealed.

**7.3 Specific use(s):** No further relevant information available.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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**8.1 Control parameters:**  
**Derived No Effect Level(DNEL):** No information available  
**Predicted No Effect Concentration (PNEL):** No information available

**8.2 Exposure controls:**  
**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.

**Personal protective equipment:**  
**General protective and hygienic measures:** The usual precautionary measures should be adhered to in handling the chemicals.

Keep away from foodstuffs, beverages and food. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work.  
Avoid contact with the eyes and skin.  
Use breathing protection with high concentrations.  
Protective gloves  
Tightly sealed safety glasses / full face protection  
Protective work clothing.

**Breathing equipment:**  
**Protection of hands:**  
**Eye protection:**  
**Body protection:**

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

a) **Appearance Form:** Liquid, colourless to yellow aqueous solution  
b) **Odour:** Not determined  
c) **Odour Threshold:** No information available  
d) **pH** 4 – 4.5  
e) **Melting point/range:** No information available  
f) **Boiling range:** ~ 115<sup>o</sup>C  
g) **Flash point:** Not applicable aqueous solution  
h) **Flammability:** No information available  
j) **Upper/lower flammability or explosive limits:** No information available  
k) **Vapour pressure:** No information available  
l) **Vapour density:** No information available  
m) **Relative density:** 1.12 g/cm<sup>3</sup>  
n) **Water solubility:** Fully miscible  
o) **Partition coefficient:** No information available  
p) **Autoignition temperature:** No information available  
q) **Decomposition temperature:** No information available  
r) **Viscosity:** No information available  
s) **Explosive properties:** No information available  
t) **Oxidizing properties:** No information available

9.2 **Other information** No relevant information available

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## 10. STABILITY AND REACTIVITY

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10.1 **Reactivity:** No decomposition if used and stored according to specifications.  
10.2 **Chemical stability:** Stable under recommended storage conditions.  
10.3 **Possibility of hazardous reactions:** No dangerous reactions known  
10.4 **Conditions to avoid:** Incompatible materials  
10.5 **Incompatible materials:** Strong oxidizing agent  
10.6 **Hazardous decomposition products:** Can be release in the event of fire: Carbon dioxide, carbon monoxide, Nitrogen Oxides (NOx), Hydrogen Chloride (HCl)

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## 11. TOXICOLOGICAL INFORMATION

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### 11.1 Information on toxicological effects

**Acute toxicity:** Oral LD50 – 25 to 200 mg/kg (rat)  
Corrosive to skin (rbt)  
Corrosive to eyes (rbt)

**Primary irritant effect:**

**Effect on the skin:** Corrosive effect on skin and mucous membranes.  
**Effect on the eye:** Corrosive with the danger of severe eye injury.  
**If swallowed:** Toxic if swallowed.  
**Sensitisation:** No sensitising effect known.  
**Additional toxicological information** Mutagenic effects have been observed on test with bacteria.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. No classification data or carcinogenic properties of this material is available

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## 12. ECOLOGICAL INFORMATION

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### 12.1 Toxicity

<b>Aquatic toxicity:</b>	No further relevant information available
<b>12.2 Persistence and degradability:</b>	No further relevant information available
<b>12.3 Bioaccumulative potential:</b>	No further relevant information available
<b>12.4 Mobility in soil:</b>	No further relevant information available
<b>12.5 Results of PBT and vPvB assessment:</b>	No further relevant information available
<b>12.6 Other adverse effects</b>	No further relevant information available
<b>Additional ecological information:</b>	Water hazard class 2. Hazardous for water.
<b>General notes:</b>	Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system. Do not allow material to be released to the environment without proper governmental permits.

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### 13. DISPOSAL CONSIDERATIONS

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#### 13.1 Waste treatment method

<b>Substance disposal:</b>	Handover to disposers of hazardous waste. Must be specially treated under adherence to official regulations. Consult state, local or national regulations for proper disposal. Arrange disposal as special waste, by licensed disposal company.
<b>Waste packaging:</b>	Dispose of as unused product.

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### 14. TRANSPORT INFORMATION

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#### Land transport ADR/RID e GGVS/GGVE (cross-border/domestic)



<b>ADR/RID-GGVS/E Class:</b>	6.1 Toxic Substance
<b>Kemler Number:</b>	68
<b>UN No:</b>	2927
<b>Packaging group:</b>	II
<b>Label:</b>	6.1 / 8
<b>Designation of goods:</b>	2927 Toxic liquid, corrosive, organic, N.O.S (2-(Diethylamino)ethyl chloride hydrochloride)

#### Maritime transport IMDG/GGVSea:



<b>IMDG/GGVSea Class:</b>	6.1
<b>UN No:</b>	2927
<b>Label:</b>	6.1 / 8
<b>Packaging group:</b>	II
<b>Correct technical name:</b>	Toxic liquid, corrosive, organic, N.O.S (2-(Diethylamino)ethyl chloride hydrochloride)

#### Air transport ICAO-TI and IATA-DGR:



<b>ICAO/IATA Class:</b>	6.1
<b>UN/ID No:</b>	2927
<b>Label:</b>	6.1 / 8
<b>Packaging group:</b>	II
<b>Designation of goods:</b>	Toxic liquid, corrosive, organic, N.O.S (2-(Diethylamino)ethyl chloride hydrochloride)

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### 15. REGULATORY INFORMATION

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#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

The substance, 2-Diethylaminoethyl chloride hydrochloride has been registered as a transported isolated intermediate in accordance with Regulation EC No. 1907/2006 (REACH). REACH reference number: 01-2119989645-17-0000  
If you have any comments with respect to the classification and labeling of this substance please contact the lead registrant Syntor Fine Chemicals at the address detailed in section 1.

This product is subject to the International Chemical Weapons Convention.  
In the United Kingdom the product is subject to the Chemical Weapons act 1996.

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

**Designation according to EC**

**guidelines:**

**Code letter and hazard designation of product:**



T toxic



C Corrosive

**Risk phrases:**

R25 Toxic if swallowed.  
R34 Causes burns.  
R41 Risk of serious damage to eyes  
R68 Possible risk of irreversible effects  
S23 Do not breathe vapour.

**Safety phrases:**

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S28 After contact with skin wash immediately with plenty of soap and water.  
S36/37 Wear suitable protective clothing  
S39 Wear eye/face protection.  
S45 In case of accident or if you fell unwell, seek medical advice immediately (show the label where possible).

**Classification of substance according to CLP, 1272/2008/EC:**

**Complete list of associated precautionary phrases:**

P264 Wash thoroughly after handling  
P270 Do not eat, drink or smoke when handling this product  
P301 + 310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
P321 Specific treatment (see on this label)  
P 330 Rinse mouth  
P406 Store locked up  
P501 Dispose of contents / container in accordance with national regulations  
P260 Do not breathe dust or mist  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301 + 330 + 331 IF SWALLOWED Rinse mouth. Do NOT induce vomiting  
P303 + 361 + 353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304 + 340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
P310 Immediately call a POISON CENTRE or doctor/ physician  
P305 + 351 + 338 IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P201 Obtain special instruction before use  
P202 Do not handle until all safety precautions have been read and understood.  
P281 Use personal protective equipment as required

**15.2 Chemical Safety Assessment**

No data available

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**16. OTHER INFORMATION**

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Revision Summary: The issue replaces revision 008. This safety data sheet has been updated in accordance with the classification and labelling determined during the REACH registration (Regulation (EC) No. 1272/2008) of the substance as a transported isolated intermediate.

The above Information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Syntor Fine Chemicals Ltd, shall not be held liable for any damage resulting from handling or from contact with the above product.

Disclaimer: For R&D use only. Not for drug, household or other uses.

We welcome any additional information about our products that customers have obtained by personal experience.



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