Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier
Product Name
EDC hydrochloride
Product Code
SC-219152
EC No
247-361-2
CAS No
25952-53-8
Synonyms
N-Ethyl-N'-(3-dimethylaminopropyl)carbodimide, Hydrochloride; EDAC-HCL; 3-(3-Dimethylaminopropyl)-1-ethyl-carbodiimide hydrochloride

Pure substance/mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against
For research use only. Not intended for diagnostic or therapeutic use.

1.3. Details of the supplier of the safety data sheet
Santa Cruz Biotechnology, Inc.
10410 Finnell Street
Dallas, TX 75220
831.457.3800
800.457.3801
scbt@scbt.com

Santa Cruz Biotechnology, Inc.
Bergheimer Str. 89-2
69115 Heidelberg, Germany
+49.6221.4503 0
+1.800.457.3801
europe@scbt.com

1.4. Emergency telephone number
Chemtrec
1.800.424.9300 (Within USA)
+1.703.527.3887 (Outside USA)

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
Regulation (EC) No 1272/2008
Serious eye damage/eye irritation Category 2 - (H319)
Specific target organ toxicity (single exposure) Category 3 - (H335)

2.2. Label Elements
Signal word
Warning
Symbols/Pictograms

Hazard statements
H335 - May cause respiratory irritation
H319 - Causes serious eye irritation

EUH210 - Safety data sheet available on request

2.3. Other Hazards
General Hazards
Not applicable
Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Weight 191.70
Formula C₈H₁₇N₃•HCl

3.1 Substances

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>EC No</th>
<th>CAS No</th>
<th>Weight %</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
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<td>25952-53-8</td>
<td>100</td>
<td>Skin Irrit. 2 (H315)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2 (H319)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3 (H335)</td>
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</table>

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures
General advice If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.
Inhalation Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Call a physician. Artificial respiration and/or oxygen may be necessary. Oxygen or artificial respiration if needed. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.
Skin Contact Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water. Immediate medical attention is not required.
Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician. Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Ingestion Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician. Rinse mouth. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider Use personal protective equipment as required.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms No information available.

4.3. Indication of any immediate medical attention and special treatment needed
Note to physicians May cause sensitization of susceptible persons. Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media
Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture
Specific hazards arising from the chemical In the event of fire and/or explosion do not breathe fumes May cause sensitization by inhalation and skin contact Thermal decomposition can lead to release of irritating and toxic gases and vapors Thermal decomposition can lead to release of toxic/corrosive gases and vapors
5.3. Advice for firefighters
Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Personal precautions
Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
For emergency responders
Use personal protection recommended in Section 8.

6.2. Environmental precautions
Environmental precautions
Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up
Methods for containment
Prevent further leakage or spillage if safe to do so.
Methods for cleaning up
Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

6.4. Reference to other sections
See Section 12: ECOLOGICAL INFORMATION.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling
Advice on safe handling
Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Use with local exhaust ventilation. Handle in accordance with good industrial hygiene and safety practice. Corrosive hazard. Wear protective gloves/clothing and eye/face protection. Thermal decomposition can lead to release of toxic/corrosive gases and vapors.
General Hygiene Considerations
When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

7.2. Conditions for safe storage, including any incompatibilities
Storage Conditions
Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Protect from moisture.

7.3. Specific end use(s)
Risk Management Methods (RMM)
The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters
Exposure Limits
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Derived No Effect Level (DNEL)
No information available
Predicted No Effect Concentration (PNEC)
No information available.

8.2. Exposure controls
Engineering Controls
Showers
Eyewash stations
Ventilation systems
Eye/face protection
Tight sealing safety goggles. Face protection shield.
Skin and Body Protection
Suitable protective clothing. Apron. Gloves made of plastic or rubber.
Respiratory protection
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Environmental exposure controls
Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State
Solid
Appearance
No information available
Odor
Odorless

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<thead>
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<th>Property</th>
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<tr>
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<tr>
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</tr>
<tr>
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<tr>
<td>Kinematic viscosity</td>
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<td>Explosive properties</td>
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<tr>
<td>Oxidizing properties</td>
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</table>

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity
Reactivity
Not applicable

10.2. Chemical stability
Stability
Stable under recommended storage conditions.
Sensitivity to Mechanical Impact
No information available.
Sensitivity to Static Discharge
No information available.

10.3. Possibility of hazardous reactions
Hazardous polymerization
No information available.
Possibility of Hazardous Reactions
None under normal processing.

10.4. Conditions to avoid
Conditions to avoid
Exposure to air or moisture over prolonged periods.

10.5. Incompatible materials
Incompatible materials

**Strong oxidizing agents.**

### 10.6. Hazardous decomposition products

**Hazardous Decomposition Products** Carbon oxides. Nitrogen oxides (NOx). Phosgene.

### Section 11: TOXICOLOGICAL INFORMATION

#### 11.1. Information on toxicological effects

**Acute toxicity**

**Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

**Unknown acute toxicity**

0% of the mixture consists of ingredient(s) of unknown toxicity.

### Section 12: ECOLOGICAL INFORMATION

#### 12.1. Toxicity

**Ecotoxicity**

May cause long lasting harmful effects to aquatic life.

**Unknown aquatic toxicity**

100% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

#### 12.2. Persistence and degradability

**Persistence and degradability**

No information available.

#### 12.3. Bioaccumulative potential

**Bioaccumulation**

No information available.

#### 12.4. Mobility in soil

**Mobility**

No information available.

#### 12.5. Results of PBT and vPvB assessment

**PBT and vPvB assessment**

No information available.

#### 12.6. Other adverse effects

**Other adverse effects**

No information available

### Section 13: DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

**Waste from residues/unused products**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**

Do not reuse container.

**Other Information**

Waste codes should be assigned by the user based on the application for which the product was used.

### Section 14: TRANSPORT INFORMATION
Section 15: REGULATORY INFORMATION

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

National Regulations

European Union
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories
All of the components in the product are on the following Inventory lists
TSCA (United States): Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) Australia (AICS) China (IECSC) ENCS (Japan):

<table>
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<tr>
<th>Chemical Name</th>
<th>TSCA</th>
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<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>ENCS</th>
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<th>AICS</th>
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<tr>
<td>EDC hydrochloride</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

X - Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

15.2. Chemical safety assessment
Chemical Safety Report No information available

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

Revision note
No information available.

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

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet