MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifiers

Product name: 2-(2,4-Diaminophenoxy)ethanol Dihydrochloride
Synonyms: 2-(2,4-Diamino)Benzyloxyethanol Dihydrochloride; 2-(2,4-Diaminophenoxy)Ethanol Dihydrochloride; 2-(2,4-Diaminophenoxy)Ethanol Hydrochloride; 2,4-Diaminophenoxyethanol 2Hcl; 2,4-Diaminophenoxy Ethanol Dihydrochloride; 2,4-Diaminophenoxy-Ethanol Hcl; 2-(2,4-Diaminophenoxy)-Ethanodihydrochloride
CAS-No.: 66422-95-5
Chemical Formula: C₈H₁₂N₂O₂, 2HCL
Molecular Weight: 241.12

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute toxicity, Oral (Category 4)
Skin sensitization (Category 1)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Harmful if swallowed. May cause sensitization by skin contact.

Label elements

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

Pictogram
Signal word
Warning

Hazard statement(s)
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.

Precautionary statement(s)
P280 Wear protective gloves.

Supplemental Hazard Statements
none


Hazard symbol(s)

R-phrase(s)
R22 Harmful if swallowed.
R43 May cause sensitization by skin contact.

S-phrase(s)
S36/37 Wear suitable protective clothing and gloves.

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
Molecular Weight: 241.12 g/mol

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2,4-Diaminophenoxy)ethanol dihydrochloride</td>
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<tr>
<td>CAS-No. : 66422-95-5</td>
<td></td>
</tr>
<tr>
<td>EC-No. : 266-357-1</td>
<td>-</td>
</tr>
</tbody>
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4. FIRST AID MEASURES

Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Indication of any immediate medical attention and special treatment needed
no data available

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture: Carbon oxides, nitrogen oxides (NOx)

Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

Further information
no data available

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

Environmental precautions: Do not let product enter drains.
Methods and materials for containment and cleaning up:

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections: For disposal see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage, including any incompatibilities:

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

Specific end uses:
no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body Protection**
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

| a) Appearance | Form: solid |
| b) Odour | no data available |
| c) Odour Threshold | no data available |
| d) pH | no data available |
| e) Melting point/freezing point | no data available |
| f) Initial boiling point and boiling range | no data available |
| g) Flash point | no data available |
| h) Evaporation rate | no data available |
| i) Flammability (solid, gas) | no data available |
| j) Upper/lower flammability or explosive limits | no data available |
| k) Vapour pressure | no data available |
| l) Vapour density | no data available |
| m) Relative density | no data available |
| n) Water solubility | no data available |
| o) Partition coefficient: n-octanol/water | log Pow: 0,02 |
| p) Autoignition temperature | no data available |
q) Decomposition temperature  no data available
r) Viscosity  no data available
s) Explosive properties  no data available
t) Oxidizing properties  no data available

**Other safety information**
No data available

### 10. STABILITY AND REACTIVITY

**Reactivity**
no data available

**Chemical stability:**  no data available

**Possibility of hazardous reactions:**  no data available

**Conditions to avoid:**  no data available

**Incompatible materials:**  Strong oxidizing agents

**Hazardous decomposition products**

Other decomposition products - no data available

### 11. TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

**Acute toxicity:**  no data available

**Skin corrosion/irritation:**  no data available

**Serious eye damage/eye irritation** no data available

**Respiratory or skin sensitization**

May cause allergic skin reaction.

The preceding data, or interpretation of data, was determined using Quantitative Structure Activity Relationship (QSAR) modeling.
Germ cell mutagenicity: no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Potential health effects:

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion: Harmful if swallowed.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Signs and Symptoms of Exposure:
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information: RTECS: KK3549100

12. ECOLOGICAL INFORMATION

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment: no data available
Other adverse effects: no data available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product:
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused product.

14. TRANSPORT INFORMATION

UN number
ADR/RID: - IMDG: - IATA: -

UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

Transport hazard class(es)
ADR/RID: - IMDG: - IATA: -

Packaging group
ADR/RID: - IMDG: - IATA: -

Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user
No data available

15. REGULATORY INFORMATION

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

Safety, health and environmental regulations/legislation specific for the substance or mixture:
No data available
Chemical Safety Assessment: no data available

16. OTHER INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Jay Organics be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Jay Organics has been advised of the possibility of such damages.