1. Identification of the substance/mixture and of the company/undertaking

Product identifier:
- Product name: trans-1,2-Cyclohexanediaminetetraacetic acid, 1-hydrate
- Product code (SDS NO): 1925E-1

Details of the supplier of the safety data sheet
- Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.
- Address: 3-1, Honmachibashi, Chuo-ku, Osaka 540-0029, JAPAN
- Division: Safety Management Dept. of Chemicals
- Telephone number: +81-6-6946-8061
- FAX: +81-6-6946-1607
- e-mail address: kagakuhinanzenkanri@kishida.co.jp

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS
- Skin corrosion/irritation: Category 2
- Serious eye damage/eye irritation: Category 2A
(Note) GHS classification without description: Not applicable/Out of classification/Not classifiable

Label elements

Signal word: Warning

HAZARD STATEMENT
- Causes skin irritation
- Causes serious eye irritation

PRECAUTIONARY STATEMENT

Prevention
- Wash contaminated parts thoroughly after handling.
- Wear protective gloves.
- Wear eye protection/face protection.

Response
- IF ON SKIN: Wash with plenty of soap and water.
- If skin irritation occurs: Get medical advice/attention.
- Take off contaminated clothing and wash it before reuse.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.
3. Composition/information on ingredients
Mixture/Substance selection:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Ingredient name: trans-1,2-Cyclohexanediaminetetraacetic acid, 1-hydrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>(％): 99(min)</td>
</tr>
<tr>
<td>Chemical formula</td>
<td>C₆H₁₀[N(CH₂COOH)₂]₂・H₂O</td>
</tr>
<tr>
<td>CAS No.</td>
<td>125572-95-4</td>
</tr>
<tr>
<td>MW</td>
<td>364.35</td>
</tr>
</tbody>
</table>

Note: The figures shown above are not the specifications of the product.

4. First-aid measures

Descriptions of first-aid measures

IF INHALED
Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair)
Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash with plenty of soap and water.
If skin irritation or rash 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 eye irritation persists: Get medical advice/attention.

IF SWALLOWED
Rinse mouth.
Call a POISON CENTER or doctor/physician if you feel unwell.

5. Fire-fighting measures

Extinguishing media
Suitable extinguishing media
Use appropriate extinguishing media suitable for surrounding facilities.

Specific hazards arising from the substance or mixture
Containers may explode when heated.
Fire may produce irritating, corrosive and/or toxic gases.

Advice for firefighters
Specific fire-fighting measures
Evacuate non-essential personnel to safe area.
Special protective equipment and precautions for fire-fighters
Wear fire/flame resistant/retardant clothing.
Wear protective gloves/protective clothing/eye protection/face protection.
Firefighters should wear self-contained breathing apparatus with full face peace operatedpositive pressure mode.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures
Ventilate area after material pick up is complete.
Wear proper protective equipment.

Methods and materials for containment and cleaning up
Sweep up, place in a bag and hold for waste disposal.
Preventive measures for secondary accident
7. Handling and storage
   Precautions for safe handling
   Preventive measures
   (Protective measures against fire & explosion)
   Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
   Exhaust/ventilator
   Exhaust/ventilator should be available.
   Safety treatments
   Avoid contact with skin.
   Avoid contact with eyes.
   Safety Measures/Incompatibility
   Wear protective gloves, protective clothing or face protection.
   Wear eye protection/face protection.
   When using do not eat, drink or smoke.
   Conditions for safe storage, including any incompatibilities
   Recommendation for storage
   Keep container tightly closed.
   Store in a cool, dry place. Do not store in direct sunlight.

8. Exposure controls/personal protection
   Exposure controls
   Appropriate engineering controls
   Do not use in areas without adequate ventilation.
   Eye wash station should be available.
   Washing facilities should be available.
   Individual protection measures
   Respiratory protection
   Wear respiratory protection.
   Hand protection
   Wear protective gloves.
   Eye protection
   Wear eye/face protection.
   Safety and Health measures
   Wash ... thoroughly after handling.
   Take off contaminated clothing and wash it before reuse.

9. Physical and Chemical Properties
   Information on basic physical and chemical properties
   Physical properties
   Appearance: Crystals or powder
   Color: White
   Odor data N.A.
   Phase change temperature
   Initial Boiling Point/Boiling point data N.A.
   Melting point/Freezing point: 216°C
   Decomposition temperature data N.A.
   Flash point data N.A.
   Auto-ignition temperature data N.A.
   Explosive properties data N.A.
10. Stability and Reactivity
   Chemical stability
   Stable under normal storage/handling conditions.
   Conditions to avoid
   Contact with incompatible materials.
   Contact with fire source.
   Incompatible materials
   Oxidizing agents
   Hazardous decomposition products
   Carbon oxides, Nitrogen oxides

11. Toxicological Information
   Information on toxicological effects
   No Acute toxicity data available
   No Irritant properties data available
   No Allergenic and sensitizing effects data available
   No Mutagenic effects data available
   No Carcinogenic effects data available
   No Teratogenic effects data available
   No reproductive toxicity data available
   No STOT–single/repeated exposure data available
   No Aspiration hazard data available
   Additional data
   May cause lung disorders by massive inhalation of powdered substance.
   –e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

12. Ecological Information
   Toxicity
   No Aquatic toxicity data available
   No Persistence and degradability data available
   No Bioaccumulative potential data available
   No Mobility in soil data available
   Ozone depleting chemical data not available

13. Disposal considerations
   Waste treatment methods
   Dispose of contents/container in accordance with local/national regulation.

14. Transport Information
   Not applicable to UN NO.
15. Regulatory Information

Other regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

GHS classification and labelling

Skin Irrit. 2: H315 Causes skin irritation
Eye Irrit. 2A: H319 Causes serious eye irritation

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN Classification, labelling and packaging of substances and mixtures (table3–1 ECNO6182012)
2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT)
2017 TLVs and BEIs. (ACGIH)
http://monographs.iarc.fr/ENG/Classification/index.php
Supplier's data/information

General Disclaimer

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It are advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products’ properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2015).