1. Identification of the mixture and of the company

Product name: Mechanical pencil lead (HB)
Company: ZEBRA CO., LTD.
2-9 Higashi-gokencho Shinjuku-ku Tokyo JAPAN
TEL: +81-3-3268-1193
FAX: +81-3-3268-1197
Emergency telephone: +81-3-3268-1193
This phone number is available only during office hours: 9 a.m. to half past 5 p.m.
(Japan time)
Product use: Lead for writing implement

2. Hazards identification

GHS classification

Physical hazards
- Self-heating mixtures: Not classified
- Corrosive to metals: Not classified

Health hazards
- Acute toxicity—Oral: Not classified
- Acute toxicity—Dermal: Not classified
- Acute toxicity—Inhalation: vapour: Classification not possible
- Acute toxicity—Inhalation: mist: Classification not possible
- Skin corrosion / irritation: Classification not possible
- Serious eye damage / eye irritation: Classification not possible
- Respiratory or skin sensitization: Classification not possible / Classification not possible
- Germ cell mutagenicity: Classification not possible
- Carcinogenicity: Classification not possible
- Reproductive toxicity: Classification not possible
- Specific target organ toxicity (Singel exposure): Classification not possible
- Specific target organ toxicity(Repeated exposure): Classification not possible
- Aspiration hazard: Classification not possible

GHS label elements

Pictograms or Symbol
- No pictogram

Signal Word
- No signal word

Hazard statement
- No hazard statement

Precautionary Statements

Prevention
- Nothing in particular

Response
- Nothing in particular
Storage
• Store in a well ventilated place. Keep cool and container tightly closed.

Disposal
• Dispose of contents/container to in accordance with local government regulation.

3. Composition/information on ingredients

Mixture
Component and Amount

<table>
<thead>
<tr>
<th>Component</th>
<th>Amount</th>
<th>CAS No.</th>
<th>Reference Number in Gazetted List in Japan (Japanese Chemical Substances Control Act)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite</td>
<td>50–80%</td>
<td>7782-42-5</td>
<td>Not subject to the regulation</td>
</tr>
<tr>
<td>Carbon</td>
<td>10–30%</td>
<td>7440-44-0</td>
<td>Not subject to the regulation</td>
</tr>
<tr>
<td>Additives</td>
<td>10–30%</td>
<td>Nondisclosure</td>
<td>Nondisclosure(registered)</td>
</tr>
</tbody>
</table>

4. First-aid measures

After inhalation:
Call a doctor/physician if you feel unwell.
Remove victim to fresh air and keep at rest in a position comfortable for breathing.

After skin contact:
Call a doctor/physician if you feel unwell.
If skin irritation occurs: Get medical advice/attention

After eye contact:
IF IN EYES: Rinse continuously with water for several minutes.
Remove contact lenses if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

After ingestion:
Call a doctor/physician if you feel unwell.

Protection of the person who takes first aid
Nothing in particular.

5. Fire-fighting measures

Suitable Extinguishing media
Carbon dioxide, dry chemical powder, water fog, foam

Prohibition extinguishing media for safety reason
Water spray (straight)

Specific hazards
This product is not combustible. But evaporated residue is combustible.
May produce toxic fumes if burning.

Specific fire fighting procedures
If safe to do so, move undamaged containers from the fire area.
If can't move the container, cool containers and surrounding with spray water.
Cool containers with large quantities of water until well after extinguished the fire.

Special protective equipment for fire-fighters
Fire-fighting should be performed from the windward side.
Respiratory protection, and other suitable protective equipment
6. Accidental release measures

Personal precautions
The pollution area should be established as off limits without concerned persons.

Protective equipment and emergency measure
Do not touch the leakage or its damaged container without suitable protection.
Do not walk through the leakage.
Keep sufficient ventilation if the area is indoor.
Remove ignition sources.

Environmental precautions
Keep away from drains, and prevent from releasing to the environment.

Methods for cleaning up
Use non-flammable absorbent materials, and put them in airtight container.
Dispose of absorbent in accordance with law.

Prevention of secondary disaster
Remove nearby ignition source and hot surface.

7. Handling and storage

Handling

Technical measures
Do suitable equipment measures and use suitable protection that refer to “8. Exposure control/personal protection”.

Local exhaust ventilation and general ventilation
Use local exhaust ventilation and general ventilation that refer to “8. Exposure control/personal protection”.

Caution
When handling do not use high temperature articles, spark and fire.
Handle container with care, do not make it turn over, drop, give impact and drag.
Do not breathe, contact and swallow.
Maintain air concentrations below exposure limit using exhaust ventilation.
Do not eat, drink or smoke when using this product.
Wash hand thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.

Avoid contact
Refer to section 10 about stability and reactivity.

Storage

Incompatible materials
Refer to section 10 about stability and reactivity.

Storage condition
Store away from heat/sparks/open flames – No smoking
Store in a well ventilated place. Keep cool and container tightly closed.
Store locked up.

The Containers
Use the container that our company filled up when ship products
8. Exposure control/ personal protection

**Exposure limit values**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Permissible concentration</th>
<th>Administrative levels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The Japan Society for Occupational Health</td>
<td>ACGIH TLV–TWA</td>
</tr>
<tr>
<td></td>
<td>Nothing in particular</td>
<td></td>
</tr>
</tbody>
</table>

**Equipment measures**
- Put up local exhaust ventilation. Use explosion-proof electrical/ventilating/lighting.
- Take precautionary measures against static discharge.
- Put up emergency eyewash and shower in case of storage or handling about this product.

**Protection**
- **Respiratory protection**
  - If necessary use suitable respiratory protection.
- **Hand protection**
  - Use suitable protective gloves.
- **Eye protection**
  - Use suitable eye protection.
- **Skin/body protection**
  - If necessary use suitable face protection.
- **Hygiene measures**
  - Do not eat, drink or smoke when using this product.
  - Wash thoroughly after handling.

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Black Solid</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point / Coagulating point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limit UEL</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limit LEL</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>No data available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Ignition point</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition point</td>
<td>No data available</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>This product is stable in normal condition.</td>
</tr>
<tr>
<td>Materials to Avoid</td>
<td>No data available</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>No data available</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>No data available</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>No data available</td>
</tr>
</tbody>
</table>
11. Toxicological information

<table>
<thead>
<tr>
<th>Toxicity Category</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity—Oral</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute toxicity—Dermal</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute toxicity—Inhalation: vapour</td>
<td>Classification not possible</td>
</tr>
<tr>
<td>Acute toxicity—Inhalation: mist</td>
<td>Classification not possible</td>
</tr>
<tr>
<td>Skin corrosion / irritation</td>
<td>Classification not possible</td>
</tr>
<tr>
<td>Serious eye damage / eye irritation</td>
<td>Classification not possible</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Classification not possible / Classification not possible</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Classification not possible</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Classification not possible</td>
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<tr>
<td>Reproductive toxicity</td>
<td>Classification not possible</td>
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<td>Specific target organ toxicity (Singel exposure)</td>
<td>Classification not possible</td>
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<tr>
<td>Specific target organ toxicity (Repeated exposure)</td>
<td>Classification not possible</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Classification not possible</td>
</tr>
</tbody>
</table>

12. Ecological information

<table>
<thead>
<tr>
<th>Ecological Category</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous to the aquatic environment (acute)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Hazardous to the aquatic environment (chronic)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Degradability</td>
<td>No data is available</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>No data is available</td>
</tr>
<tr>
<td>Mobility in soil</td>
<td>No data is available</td>
</tr>
</tbody>
</table>

13. Disposal considerations

**Waste residues**
- Disposal must be made according to official regulations.
- Avoid release to the environment.

**Contaminated container and packaging**
- Do not flush into the sewer.
- Remove all contents when you dispose of empty containers.

14. Transport information

The contents are as follows when transport only ink

**International regulation**

<table>
<thead>
<tr>
<th>IMDG (maritime transport)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>Class</td>
</tr>
<tr>
<td>Packing Group</td>
</tr>
<tr>
<td>Marine Pollutant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ICAO/IATA (air transport)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>Class</td>
</tr>
<tr>
<td>Packing Group</td>
</tr>
</tbody>
</table>

**Special precautions**
- Prevent from falling, stubbleing and doing damage when the container loading.
- Avoid acute vibration and friction for container.
If there are some indications of hazard in transporting like acute leak in transporting, take emergency measures and report the accident at once to disaster management agency. Avoid transport with foods or feeds. Above regulations are applied to transport of writing instruments filled with the Lead.

15. Regulatory information (Japan)

Follow all regulation in your country.

16. Other information
In this sheet, the contents of ingredients and the value of physical and chemical properties are not guaranteed performance.
The information contained in this sheet is based on the data available at now.
But this shall not constitute a guarantee for any specific or classification.
Please be alert to handling this product because chemicals shall have unknown hazards.
This sheet may be revised when we get new information.
The information is assumed in the case of large-scale handling on business operations.
They cannot be always applicable to general use of writing instruments.

Reference
Globally Harmonized System of Classification and Labelling of Chemicals (GHS) second revised edition 2007
Recommendation of Occupational Exposure Limits (2009–2010) by The Japan Society for Occupational Health
2009 TLVs and BEIs by ACGIH