1 Identification of substance

Product details

Trade name: COPPER PLUS - WIRE FORM, 454G

Article number: 02401362
Application of the substance / the preparation Laboratory chemicals

Manufacturer/Supplier:
PerkinElmer Life and Analytical Sciences
710 Bridgeport Avenue
Shelton, Connecticut 06484 USA

Information department:
Technical Support
800-762-4000

Emergency information:
CHEMTREC (within U.S.) 800 424-9300
CHEMTREC (from outside U.S.) 1(703)-527-3883

2 Composition/Data on components

Chemical characterization:
CAS No. Description
7440-30-8 copper

Identification number(s)
EINECS Number: 231-159-6

3 Hazards identification

Hazard description: Not applicable.
Information pertaining to particular dangers for man and environment: Not applicable.
Classification system:
NFPA ratings (scale 0 - 4)

Health = 0
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)

HEALTH D Health = 0
FIRE D Fire = 0
REACTIVITY D Reactivity = 0

4 First aid measures

General information: No special measures required.
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact: Rinse opened eye for several minutes under running water.
After swallowing: If symptoms persist consult doctor.

(Contd. on page 2)
5 Fire fighting measures

Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Protective equipment: No special measures required.

6 Accidental release measures

Person-related safety precautions: Not required.
Measures for environmental protection: Do not allow to enter sewers/surface or ground water.
Measures for cleaning/collection:
Pick up mechanically.
Dispose contaminated material as waste according to item 13.
Additional information: No dangerous substances are released.

7 Handling and storage

Handling:
Information for safe handling: No special measures required.
Information about protection against explosions and fires: No special measures required.

Storage:
Requirements to be met by storerooms and receptacles: No special requirements.
Information about storage in one common storage facility: Not required.
Further information about storage conditions: None.

8 Exposure controls and personal protection

Additional information about design of technical systems: No further data; see item 7.

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
<th>7440-50-8 copper</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>1* 0.1** mg/m³</td>
</tr>
<tr>
<td>as Cu</td>
<td>dusts and mists **fume</td>
</tr>
<tr>
<td>REL</td>
<td>1* 0.1 R** mg/m³</td>
</tr>
<tr>
<td>as Cu</td>
<td>dusts and mists **fume</td>
</tr>
<tr>
<td>TL</td>
<td>Short-term value: 0.1** mg/m³</td>
</tr>
<tr>
<td>Long-term value: 1* 0.2** mg/m³</td>
<td></td>
</tr>
<tr>
<td>*dusts and mists; **fume; as Cu</td>
<td></td>
</tr>
</tbody>
</table>

Additional information: The lists that were valid during the creation were used as basis.

Personal protective equipment:
General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed.
Breathing equipment: Not required.
Protection of hands:
The glove material has to be impermeable and resistant to the product/the substance/the preparation.

(Cond. on page 3)
Protective gloves

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Safety glasses

9 Physical and chemical properties

<table>
<thead>
<tr>
<th>General Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form: Solid</td>
</tr>
<tr>
<td>Color: Light red</td>
</tr>
<tr>
<td>Odor: Characteristic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range: 1083°C (1981°F)</td>
</tr>
<tr>
<td>Boiling point/Boiling range: 2597°C (4707°F)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flash point: Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (solid, gaseous): Product is not flammable.</td>
</tr>
<tr>
<td>Danger of explosion: Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Vapor pressure at 20°C (68°F): 0 hPa</td>
</tr>
<tr>
<td>Density at 20°C (68°F): 8.96 g/cm³</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water: Not miscible or difficult to mix.</td>
</tr>
<tr>
<td>Organic solvents: 0.0 %</td>
</tr>
</tbody>
</table>

| Solids content: 100.0 % |

10 Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Dangerous reactions: No dangerous reactions known.

Dangerous products of decomposition: No dangerous decomposition products known.

11 Toxicological information

Acute toxicity:

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

(Contd. on page 4)
Material Safety Data Sheet
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on the eye: Irritating effect.
Sensitisation: No sensitizing effects known.
Additional toxicological information:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
The substance is not subject to classification.

12 Ecological information

General notes:
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

Product:
Recommendation:
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.

14 Transport information

Land transport ADR/RID (cross-border):
ADR/RID class: -
Maritime transport IMDG:
Marine pollutant: Yes
Transport/Additional information: Not dangerous according to the above specifications.

15 Regulations

Sara
Section 355 (extremely hazardous substances):
Substance is not listed.

Section 313 (Specific toxic chemical listings):
Substance is listed.

Proposition 65
Chemicals known to cause cancer:
Substance is not listed.

Chemicals known to cause reproductive toxicity for females:
Substance is not listed.

Chemicals known to cause reproductive toxicity for males:
Substance is not listed.

Chemicals known to cause developmental toxicity:
Substance is not listed.

(Contd. of page 3)

(Contd. on page 5)
### Cancerogenicity categories

**EPA (Environmental Protection Agency)**
7440-50-3 copper
- D

**IARC (International Agency for Research on Cancer)**
Substance is not listed.

**NTP (National Toxicology Program)**
Substance is not listed.

**TLV (Threshold Limit Value established by ACGIH)**
Substance is not listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**
Substance is not listed.

**OSHA-Ca (Occupational Safety & Health Administration)**
Substance is not listed.

**Product related hazard informations:**
Observe the general safety regulations when handling chemicals.
The substance is not subject to classification according to the sources of literature known to us.

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### 16 Other information

**Disclaimer**
The information provided in this Material Safety Data Sheet is based on our present knowledge, and believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be considered a warranty or quality specification. All materials may present unknown hazards, and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards which exist. PerkinElmer Life and Analytical Sciences shall not be held liable for any damage resulting from handling or from contact with the product.

**Department issuing MSDS: Safety and Health**

**Contact:**
- With in the USA: 1-(800)-762-4000
- Out side the USA: 1-(203)-712-8488

* Data compared to the previous version altered.*