XI'AN FUNCTION MATERIAL GROUP CO., LTD
Material Safety Data Sheet
Copper Oxide

1. Product and Company Identification

| Trade Name: | Copper oxide |
| :--- | :--- |
| Chemical Formula: | $\mathrm{Cu}_{2} \mathrm{O}$ |
|  |  |
| Manufacturer/Supplier: | XI'AN FUNCTION MATERIAL GROUP CO., LTD |
| Street: | No. 69, Gazelle Valley, High-Tech Zone |
| City: | XI'AN |
| State: | Shaanxi |
| Zip Code: | 710077 |
| Country: | China |
| Tel \#: | $+86-29-88993870 /+86-13519132051$ |
|  |  |

2. Hazards Identification


## 3. Composition

## Chemical Family:

Additional Names:

Copper oxide $\left(\mathrm{Cu}_{2} \mathrm{O}\right)$ :
Percentage:
CAS \#:
EC \#:

Ceramic
Copper(I) oxide, Cuprous oxide, Dicopper oxide, Cuprite, Red copper oxide

100 wt\%
1317-39-1
215-270-7

## 4. First Aid Procedures

| General Treatment: | Seek medical attention if symptoms persist. |
| :--- | :--- |
| Special Treatment: <br> Important Symptoms: | None <br> None |
| Inhalation: | Remove victim to fresh air. Supply oxygen if breathing is difficult. |
| Ingestion: | Seek medical attention |
| Skin: | Wash affected area with mild soap and water. Remove any <br> contaminated clothing. |
| Eyes: | Flush eyes with water, blinking often for several minutes. Remove <br> contact lenses if present and easy to do. Continue rinsing |


|  | 5. Firefighting Measures |
| :--- | :--- |
| Flammability: | Non-flammable |
| Extinguishing Media: | No special restrictions - use suitable extinguishing agent for <br> surrounding material and type of fire. <br> Use full-face, self-contained breathing apparatus with full protective <br> clothing to prevent contact with skin and eyes. See section 10 for <br> decomposition products. |
| Spec. Fire Fighting Procedure: | 6. Accidental Release Measures |
| If Material Is Released/Spilled: | Wear appropriate respiratory and protective equipment specified in <br> special protection information. Isolate spill area and provide <br> ventilation. Vacuum up spill using a high efficiency particulate <br> absolute (HEPA) air filter and place in a closed container for disposal. <br> Take care not to raise dust. |
| Isolate runoff to prevent environmental pollution. |  |
| Environmental Precautions: | 7. Handling and Storage |
|  | Wash thoroughly after handling. <br> Store in a cool dry place in a tightly sealed container. Store apart from <br> materials and conditions listed in section 10. |
| Dending Conditions: | Do not use tobacco or food in work area. Wash thoroughly before <br> eating and smoking. Do not blow dust off clothing or skin with <br> compressed air. <br> Provide sufficient ventilation to maintain concentration at or below <br> threshold limit. |

8. Exposure Controls and Personal Protection

| Permissible Exposure Limits: | N/A |
| :--- | :--- |
| Threshold Limit Value: | N/A |
| Special Equipment: | None |
| Respiratory Protection: | Use a respirator with type N95 (USA) or PE (EN 143) cartridges as a <br> backup to engineering controls. Risk assessment should be performed <br> to determine if purifying respirators are appropriate. Only use <br> equipment tested and approved under appropriate government |
|  | standards. |
|  | Butyl rubber gloves, BR <br> Safety glasses or goggles |
|  | Protective work clothing. Wear close-toed shoes and long <br> Eye Protection: <br> Body Protection: |
|  | sleeves/pants. |

9. Physical and Chemical Characteristics

| Color | Dark red to purple |
| :--- | :--- |
| Form: | Powder |
| Odor: | Odorless |
| Water Solubility: | Insoluble |
| Boiling Point: | $1800^{\circ} \mathrm{C}$ |
| Melting Point: | $1235^{\circ} \mathrm{C}$ |
| Flash Point: | $\mathrm{N} / \mathrm{A}$ |
| Autoignition Temperature: | $\mathrm{N} / \mathrm{A}$ |
| Density: | $6.00 \mathrm{~g} / \mathrm{cc}$ |
| Molecular weight: | $143.09 \mathrm{~g} / \mathrm{mol}$ |


|  | 10. Reactivity |
| :--- | :--- |
| Stability: | Stable under recommended storage conditions |
| Reacts With: | Oxidizing agents |
| Incompatible Conditions: | Air, Water/moisture |
| Hazardous Decomposition Products: | Metal oxide fume |

## 11. Toxicological Information

| Potential Health Effects: |  |
| :---: | :---: |
| Eyes: | May cause irritation |
| Skin: | May cause irritation |
| Ingestion: | May cause irritation |
| Inhalation: | May cause irritation |
| Chronic: | The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance. |
| Signs \& Symptoms: | N/A |
| Aggravated Medical Conditions: | N/A |
| Median Lethal Dose: | $470 \mathrm{mg} / \mathrm{kg}$ for rat by mouth |
| Carcinogen: | EPA-D: Not classifiable as to human carcinogenicity: inadequate human and animal evidence of carcinogenicity or no data are available. |


|  | 12. Ecological Information |
| :--- | :--- |
| Aquatic Toxicity: | High |
| Persistent Bioaccumulation Toxicity: | No |
| Very Persistent, Very Bioaccumulative: | No |
| Notes: | Very toxic for aquatic organism. |
|  | May cause long lasting harmful effect on aquatic life. |
|  | Do not allow material to be released to the environment without proper |
|  | governmental permits. |
|  | Do not allow product to reach any water sources. |
|  | Danger to drinking water if even extremely small quantities leakinto |
|  | the ground. |
|  | Also poisonous for fish and plankton in water bodies. |
|  | Avoid transfer into the environment. |

Dispose of in accordance with local, state, national, and international regulations.

| Hazardous: |
| :--- |
| Hazard Class: 9 Miscellaneous dangerous substances and articles <br> Packing Group: III <br> UN Number: UN3077 <br> Proper Shipping Name: Environmentally hazardous substances, solid, n.o.s. (Copper oxide) <br>   |

15. Regulatory Information

| Sec 302 Extremely Hazardous: | No |
| :--- | :--- |
| Sec 304 Reportable Quantities: | N/A |
| Sec 313 Toxic Chemicals: | Yes |

## 16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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