Resistor Foil NiCr

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Resistor Foil NiCr

MANUFACTURER:

Ticer Technologies
2555 West Fairview St., Suite 101
Chandler, AZ 85224, USA
Customer Service: 480-223-0890

2. COMPOSITION/INFORMATION ON INGREDIENTS

	wt%	CAS Registry #
Copper	>99.04	7440-50-8
Nickel metal	<0.55	7440-02-0
Chrome metal	<0.16	7440-47-3
Zinc	<0.20	7440-66-6
Arsenic	<0.05	7440-38-2

COMMENTS:

Resistive layer is comprised of the following in descending order:

Ni>Cr

Copper, nickel and chrome dust have a P.E.L. of 1 mg/cubic meter.
Zinc dust has a P.E.L. of 15 mg/cubic meter.

Note: The resistive material is deposited on copper foil for PWB.

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECT

SKIN:

Nickel compounds have been known to cause “nickel itch”. Wash skin with soapy water.

4. FIRST AID MEASURES

COMMENTS:
No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels of dust, remove to fresh air and get medical attention if cough or other symptoms develop.

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5. FIRE FIGHTING MEASURES

COMMENTS:
Material is a metal and noncombustible.

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6. ACCIDENTAL RELEASE MEASURES

COMMENTS:
N/A

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7. HANDLING AND STORAGE

GENERAL PROCEDURES:
The use of gloves is recommended.

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8. EXPOSURE CONDITIONS/PERSONAL PROTECTION

ENGINEERING CONTROLS:
If user operations generate dust, use ventilation to keep exposure to airborne contaminants below the exposure limit.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid
Odor: No odor
Appearance: Metal foil is a light grey on side; yellow on the opposite side.
Boiling Point: 2567°C
Melting Point: 1084°C
Density: 8.96 g/cubic cm.

10. STABILITY AND REACTIVITY

STABLE: Yes Note: Copper reacts with nitric acid to form noxious NOx gas.

HAZARDOUS POLYMERIZATION: No

HAZARDOUS DECOMPOSITION:
If material is sanded, the copper dust produced will react violently with substances such as ammonium nitrate, chlorates and bromates.

11. TOXICOLOGICAL INFORMATION

GENERAL COMMENTS:
Not applicable.

12. ECOLOGICOL INFORMATION

GENERAL COMMENTS:
No information available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:
Scrap metal can be reclaimed.

14. TRANSPORT INFORMATION

SPECIAL SHIPPING NOTES:
Unrestricted.

15. REGULATORY INFORMATION

UNITED STATES
SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)
Title III Notes: Copper and nickel are reportable under SARA Title III.

The threshold Form R level as stated in the regulations for both metals are:

Manufactured 25,000 lbs.
Processed 25,000 lbs.
Otherwise used 10,000 lbs.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)
CERCLA Regulatory: Copper is a CERCLA listed material with an RQ value of 5000 lbs.
Nickel is a CERCLA listed material with an RQ value of 100 lbs.
Zinc is a CERCLA listed material with an RQ value of 1000 lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)
TSCA Regulatory: All metals are listed on the TSCA list.

16. OTHER INFORMATION

MANUFACTURE DISCLAIMER:

Ticer Technologies provides this information in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

Ticer Technologies will not be responsible for damages resulting from the use of or reliance upon this information.