

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Effective date: 11.19.2015

Revision : 03.30.2016

Copper + Nanoshield

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



1.1 Product identifier

Material Name: Copper + Nanoshield

Product code: TAI-NS

Additional information: NEMA MW: 35-C, 73-C

1.2 Relevant identified uses of the substance or mixture and uses advised against: Industrial

1.3 Details of the manufacturer/supplier of the safety data sheet

Manufacturer:

Rea Magnet Wire Company, Inc.
3400 E Coliseum Blvd. Suite 200
Fort Wayne, IN 46805
1-260-421-7358

Emergency telephone number:

CHEMTREC

1-800-424-9300 (24 hour)

2 Hazards identification

2.1 Classification of the substance or mixture:

In compliance with EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments. The substance is not classified as hazardous according to the Globally Harmonized System (GHS).

Hazard-determining components of labeling: None.

2.2 Label elements

Hazard pictograms: None

Signal word: None

Hazard statements: None

Precautionary statements: None

2.3 Other hazards: None known

Information concerning particular hazards for humans and environment:

The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments, and extended by company and literature data. The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

3 Composition/information on ingredients

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3.1 Chemical characterization: None

3.2 Description: None

3.3 Hazardous components (percentages by weight)

Identification	Name	Classification	Wt. %
CAS number: 7440-50-8	Copper		92-99
CAS number: 26061-97-2	THEIC Polyester		0.6-4.8
CAS number: 25053-57-0	Amide-Imide		0.1-0.8
CAS number: N/A	Shieldcoat		0.3-2.4

3.4 Additional information: None.

4 First aid measures

4.1 Description of first aid measures

General information: None.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position.
Maintain an unobstructed airway.

After skin contact:

Rinse affected area with soap and water.
If symptoms develop or persist, seek medical attention.

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes.
If symptoms develop or persist, seek medical attention.

After swallowing:

Rinse mouth thoroughly.
Seek medical attention if irritation, discomfort, or vomiting persists.

4.2 Most important symptoms and effects, both acute and delayed:

None

4.3 Indication of any immediate medical attention and special treatment needed:

No additional information.

5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: None

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5.2 Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors.

5.3 Advice for firefighters

Protective equipment:

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Refer to Section 8.

5.4 Additional information:

Avoid contact with skin, eyes and clothing.
Avoid inhaling gases, fumes, dust, mist and vapor.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.
Ensure air handling systems are operational.
Wear protective eye wear, gloves and clothing.

6.2 Environmental precautions:

Should not be released into the environment.
Prevent from reaching drains, sewer or waterway.

6.3 Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing.
Sweep or scoop up solid material while minimizing dust generation.
Always obey local regulations.

6.4 Reference to other sections: None

7 Handling and storage

7.1 Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.
Do not taste or swallow.

7.2 Conditions for safe storage, including any incompatibilities:

Store away from incompatible materials.
Avoid storage near extreme heat, ignition sources or open flames.

7.3 Specific end use(s): No additional information.

8 Exposure controls/personal protection



8.1 Control parameters: No applicable occupational exposure limits.

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8.2 Exposure controls

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

When handling wire such as in winding operations, safety glasses with side shields and protective gloves should be worn.

Welding, brazing, soldering or hot staking should be done under a fume hood or in a room with adequate ventilation to prevent respiratory irritation.

If the wire is mechanically stripped, the dust should be contained and not allowed to enter the room air.

Respiratory protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Protection of skin:

Select glove material impermeable and resistant to the substance.

Wear appropriate clothing to prevent any possibility of skin contact.

Eye protection:

Safety glasses or goggles are appropriate eye protection.

General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance (physical state, color):	Solid, Red to Brown	Explosion limit lower: Explosion limit upper:	Not determined or not available. Not determined or not available.
Odor:	Odorless	Vapor pressure:	1 mm Hg@1628C
Odor threshold:	Not determined or not available.	Vapor density:	Not determined or not available.
pH-value:	Not determined or not available.	Relative density:	Not determined or not available.
Melting/Freezing point:	1083C (1981.4F)	Solubilities:	Insoluble in water.
Boiling point/range:	2595C (4703F)	Partition coefficient (n-octanol/water):	Not determined or not available.
Flash point (closed cup):	Not determined or not available.	Auto/Self-ignition temperature:	Not determined or not available.
Evaporation rate:	Not determined or not available.	Decomposition temperature:	Not determined or not available.
Flammability (solid, gaseous):	Not determined or not available.	Dynamic viscosity:	Not determined or not available.
Density:	8.94 (Water=1)	Kinematic viscosity:	Not determined or not available.

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10 Stability and reactivity

10.1 Reactivity: Does not react under normal conditions of use and storage.

10.2 Chemical stability: Stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions:

Rapid polymer decomposition temperatures start at 400-500 °C. Under normal conditions and temperatures, the insulated wire is unreactive. However, the dust from stripping the insulation may react violently with inorganic acids and alkalis.

When burned, soldered, hot staked, welded or bonded, magnet wire may give off toxic decomposition products which may cause eye and/or respiratory irritation. These decomposition products may include one or more of the following: carbon monoxide, carbon dioxide, cresol, phenols, nitrous oxides, formaldehyde*, toluene diisocyanate*, and methylene dianiline.

Acute exposure to metal fumes may cause irritation of the respiratory tract and /or metal fume fever with symptoms of fever, chills, nausea, chest tightness or metallic taste. Exposure to isocyanates may cause a chemical sensitivity.

If mechanical abraded, maintain nuisance dust levels below regulatory levels.

10.4 Conditions to avoid: None known.

10.5 Incompatible materials: None known.

10.6 Hazardous decomposition products: None known.

11 Toxicological information

11.1 Information on toxicological effects:

Routes of exposure: No information available.

Acute toxicity: No additional information.

Skin corrosion/irritation: No additional information.

Serious eye damage/irritation: No additional information.

Respiratory or skin sensitization: No additional information.

Carcinogenicity: No additional information.

IARC (International Agency for Research on Cancer): None of the ingredients are listed.

NTP (National Toxicology Program): None of the ingredients are listed.

Germ cell mutagenicity: No additional information.

Reproductive Toxicity: No additional information.

STOT-single and repeated exposure: No additional information.

Aspiration toxicity: No information available.

Additional toxicological information: No additional information.

12 Ecological information

12.1 Toxicity: No additional information.

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12.2 Persistence and degradability: No additional information.

12.3 Bioaccumulative potential: No additional information.

12.4 Mobility in soil: No additional information.

General notes: No additional information.

12.5 Results of PBT and vPvB assessment:

PBT: No additional information.

vPvB: No additional information.

12.6 Other adverse effects: No additional information.

13 Disposal considerations

13.1 Waste treatment methods

Relevant information:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities.

14 Transport information

Land transport:

DOT (49 CFR) transport

14.1 UN Number:	Not Regulated
14.2 UN Proper shipping name:	Not Regulated
14.3 UN Transport hazard classes:	Not Regulated
14.4 Packing group:	None
Danger label:	None
14.5 Environmental hazards:	None
14.6 Special precautions for user:	None

ADR/RID

14.1 UN Number:	Not Regulated
14.2 UN Proper shipping name:	Not Regulated
14.3 UN Transport hazard classes:	Not Regulated
14.4 Packing group:	None
Danger label:	None
Tunnel restriction code:	None
Transport category:	None

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Hazard ID number:	None
14.5 Environmental hazards:	None
14.6 Special precautions for user:	None

Air transport:

IATA-DGR

14.1 UN Number:	Not Regulated
14.2 UN Proper shipping name:	Not Regulated
14.3 UN Transport hazard classes:	Not Regulated
14.4 Packing group:	None
Danger label:	None
14.5 Environmental hazards:	None
14.6 Special precautions for user:	None

Sea transport:

IMDG

14.1 UN Number:	Not Regulated
14.2 UN Proper shipping name:	Not Regulated
14.3 UN Transport hazard classes:	Not Regulated
14.4 Packing group:	None
Danger label:	None
EMS code:	None
14.5 Environmental hazards:	None
14.6 Special precautions for user:	None
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable

15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.

North American

SARA Section 311/312 (Specific toxic chemical listings): Not classified.

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SARA Section 302 (Extremely hazardous substances): None of the ingredients are listed.

SARA Section 313 (Specific toxic chemical listings): None of the ingredients are listed.

TSCA (Toxic Substances Control Act): All ingredients are listed.

TSCA Rules and Orders: Not applicable.

Proposition 65 (California):

Chemicals known to cause cancer: None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females: None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males: None of the ingredients are listed.

Chemicals known to cause developmental toxicity: None of the ingredients are listed.

Canada

Canadian Domestic Substances List (DSL): All ingredients are listed.

European Union

REACH Article 57 (SVHC): None of the ingredients are listed.

Germany MAK: Not classified.

Australia

Australian Inventory of Chemical Substances (AICS): All ingredients are listed.

China

Inventory of Existing Chemical Substances in China (IECSC): All ingredients are listed.

Japan

Inventory of Existing and New Chemical Substances (ENCS): All ingredients are listed.

Korea

Existing Chemicals List (ECL): All ingredients are listed.

New Zealand

New Zealand Inventory of Chemicals (NZOIC): All ingredients are listed.

Philippines

Philippine Inventory of Chemicals and Chemical Substances (PICCS): All ingredients are listed.

Taiwan

Taiwan Chemical Substance Inventory (TSCI): All ingredients are listed.

16 Other information

Abbreviations and Acronyms: None

Manufacturer Statement:

This product has been classified in accordance within GHS guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.