

Safety Data Sheet

MicroKote Nickel

SECTION 1: IDENTIFICATION

Supplier: TIFCO Industries, Inc.
PO Box 40277
Houston, TX 77240
Phone: 281-571-6000

Emergency Phone Number: 24 hours/day, 7 days/week
800-255-3924

Product Use: High Temperature Anti-Seize Compound
Restriction on Use: None known

SDS Date of Preparation: March 22, 2024

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification (Hazcom 2012):

Skin Sensitizer Category 1

Carcinogen Category 2

Specific Target Organ Toxicity – Single Exposure Category 1 (Inhalation)

Label Elements:



Signal Word: Danger

Hazard Phrases:

H317 May cause an allergic skin reaction

H370 Causes damage to respiratory tract through inhalation

H351 Suspected of causing cancer through inhalation

Precautionary Phrases:

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe mist or vapor.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves.

Response:

P302+P352 IF ON SKIN: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P308+P311 IF exposed or concerned: Call a POISON CENTER or doctor..
P308+P313 IF exposed or concerned: Get medical attention.

Storage:

P405 Store locked up

Disposal:

P501 Dispose of contents in accordance with local, regional and national regulations.

Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	%
Nickel Powder	7440-02-0	20-30
Graphite	7782-42-5	15-25
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	40-60
Rust inhibitor	Mixture	1-5
Aluminum Powder	7429-90-5	1-5

The specific identity and/or exact percentage of composition has been withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

Eye: Flush eyes with water, holding the eyelids apart. Get medical attention if irritation develops or persists.

Skin: Wash thoroughly with plenty of water. Get medical attention if irritation persists.

Inhalation: Remove to fresh air and keep comfortable for breathing. If irritation occurs, get medical attention.

Ingestion: If large amounts ingested, seek medical attention.

Most Important symptoms and effects, both acute and delayed: Skin contact may cause an allergic reaction. Inhalation of vapors or mist may cause respiratory irritation. Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention generally not required.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable and Unsuitable Extinguishing Media: Use foam, carbon dioxide or dry chemical.

Special Hazards Arising from the Chemical: This compound will not burn unless it is pre-heated. Water fog may be used to cool the containers but do not spray directly into large containers of burning liquids as frothing may occur. Dense smoke and noxious or toxic fumes may be generated in a fire. The thermal decomposition products are highly dependent on the combustion conditions and may yield oxides of nickel, aluminum and carbon. Noxious or toxic fumes may be generated, some of which may be toxic or irritating.

Special Equipment and Precautions for Fire-Fighters: Wear NIOSH approved positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate personal protective equipment. Use caution: slip hazard.

Environmental Hazards: Report spills and releases as required to appropriate authorities.

Methods and Material for Containment and Cleaning Up: Because of its viscous nature, this product is not expected to leak or spill. Collect liquid spill with an inert absorbent material and place into a suitable container for disposal. Clean area thoroughly with mineral spirits.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged skin contact. Do not inhale. Do not transfer to unlabeled containers.

Conditions for Safe Storage, Including any Incompatibilities: Store away from extreme heat and open flames. Store away from oxidizers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	Exposure Limits
Nickel Powder	1.5 mg/m3 TWA ACGIH TLV (inhalable) 1 mg/m3 TWA OSHA PEL
Graphite	2 mg/m3 TWA ACGIH TLV (respirable) 15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction)
Distillates (petroleum), hydrotreated heavy naphthenic	5 mg/m3 TWA ACGIH TLV (inhalable) 5 mg/m3 TWA OSHA PEL
Rust inhibitor	None Established
Aluminum Powder	1 mg/m3 TWA ACGIH TLV (respirable) 15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction)

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the exposure limits. If the product is used at high temperatures, local exhaust ventilation may be required.

Individual Protection Measures:

Respiratory Protection: In operations where the occupational exposure limits are exceeded, a NIOSH approved respirator with organic vapor/particulate cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin Protection: Impervious gloves such as rubber or nitrile recommended where needed to avoid prolonged skin contact.

Eye Protection: Safety glasses or goggles recommended where needed to avoid eye contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Metallic gray colored paste	Vapor Density (air = 1): Not available
Odor: Mild petroleum odor	Specific Gravity: 1.2
Odor Threshold: Not applicable	Water Solubility: Not soluble
pH: Not available	Octanol/Water Partition Coefficient: Not available
Melting Point/Freezing Point: Not available	Autoignition Temperature: Not available
Boiling Point: Not available	Decomposition Temperature: Not available
Flash Point: >350°F	Viscosity: Not available
Evaporation Rate: Not available	Explosion Properties: None
Flammable Limits: LEL: Not established UEL: Not established	Oxidizing Properties: Not oxidizing

Vapor Pressure: Not established	Aerosol Fire Protection Level: Not applicable
VOC Content: <0.5% , 5g/L	Flammability (solid, gas): Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive under normal conditions of use.

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: None known

Conditions to Avoid: Use with strong oxidizing chemicals such as concentrated acids.

Incompatible Materials: Avoid strong oxidizing agents.

Hazardous Decomposition Products: The thermal decomposition products are highly dependent on the combustion conditions and may yield oxides of nickel, aluminum and carbon. Noxious or toxic fumes may be generated, some of which may be toxic or irritating.

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eye: May cause mild irritation.

Skin: Prolonged contact may cause irritation and drying of the skin. May cause an allergic reaction.

Inhalation: No adverse effects expected at ambient temperatures. Inhalation of vapors and fumes from thermal decomposition may cause respiratory irritation and metal fume fever with symptoms of fever and chills.

Ingestion: Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea.

Chronic Hazards: Prolonged inhalation of nickel dust or fumes may cause perforation of the nasal septum and lung damage. Prolonged skin contact may cause an allergic reaction.

Carcinogen Status: Metallic nickel is classified by IARC as possibly carcinogenic to humans (Group 2B) and by NTP as reasonably anticipated to be a carcinogen. None of the components of this product are listed as carcinogens by OSHA, IARC, NTP, ACGIH or the EU CLP.

Acute Toxicity Values:

Nickel Powder: Oral rat LD50 > 9000 mg/kg

Graphite: Oral rat LD50 > 2000 mg/kg, inhalation rat LC50 > 2 mg/L

Distillates (petroleum), hydrotreated heavy naphthenic: Oral rat LD50 > 5000 mg/kg, inhalation rat LC50: 2.18 mg/L, dermal rabbit LD50 > 2000 mg/kg

Aluminum Powder: Oral rat LD50 > 15900 mg/kg, inhalation rat LC50 > 0.888 mg/L

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Nickel Powder: *Oncorhynchus mykiss* LC50: 15.3 mg/L/96hr, *Pimephales promelas* NOEC: 0.057 mg/L/32days

Graphite: *Danio rerio* LC50 > 100 mg/L/96hr

Distillates (petroleum), hydrotreated heavy naphthenic: *Pimephales promelas* LL50 > 100 mg/L/96hr.

Aluminum Powder: *Lepomis cyanellus* NOEC > 50 mg/L/96hr

Persistence and Degradability: No data available

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: None known

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, regional and national regulations. .

SECTION 14: TRANSPORT INFORMATION

DOT

Proper Shipping Name: Not regulated

DOT Technical Name: None

DOT Hazard Class: None

UN Number: None

DOT Labels Required (49CFR172.101): None

IMDG

Shipping Description: Not regulated

ID Number: None

Hazard Class: None

Packing Group: None

Labels Required: None

Marking Required: None

Placards Required: None

ICAO/IATA

Shipping Description: Not regulated

ID Number: None

Hazard Class: None

Packing Group: None

SECTION 15: REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

CERCLA Hazardous Substances (Section 103)/RQ: This product has a Reportable Quantity (RQ) of 500 lbs. based on the RQ for Nickel of 100 lbs. Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute Health, Chronic Health

SARA 313: This product contains the following chemicals regulated under SARA Title III, section 313: Aluminum Powder 1-5%, Nickel Powder 20-30%


EPA TSCA Inventory: All of the components of this product are listed on the TSCA inventory.

Canadian DSL List: All of the components of this product are listed on the DSL inventory.

Canadian Schedule 1 List: No chemicals listed are present.

AIIIC Inventory: All components are listed or exempt from listing on the Australian Industrial Chemical list.

NZIoC: All components are listed or exempt from listing on the New Zealand Inventory of Chemicals

CALIFORNIA PROPOSITION 65:  **WARNING:** This product can expose you to Nickel which is known to the State of California to cause cancer. For more information go to www.P65warnings.ca.gov

SECTION 16: OTHER INFORMATION

Revision Summary: New format to comply with OSHA Hazcom 2012

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.