

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/21/2024

Reviewed on 01/29/2024

1 Identification

- **Product identifier**
 - **Trade name:** MicroKote Nickel Anti-Seize
 - **Part number:** 9190, 9191
 - **Application of the substance / the mixture** Lubricant
- **Details of the supplier of the safety data sheet**
 - **Supplier:**
 - TIFCO Industries, Inc
 - PO Box 40277
 - Houston, TX 77240
 - Reno, NV 89515
 - USA
 - Telephone: 800-868-4326
- **Information department:** Product Safety Department
- **Emergency telephone number:**
 - United States: 1-800-424-9300
 - International: +1-703-527-3887

2 Hazard(s) identification

- Classification of the substance or mixture



GHS08 Health hazard

Specific Target Organ Toxicity - Repeated Exposure 1 H372 Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.



GHS07

Sensitization - Skin 1

H317 May cause an allergic skin reaction.

- Label elements

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Danger

- Hazard-determining components of labeling:

Nickel

- Hazard statements

H317 May cause an allergic skin reaction.

H372 Causes damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.

- Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P280 Wear protective gloves.
- P302+P352 If on skin: Wash with plenty of water.
- P314 Get medical advice/attention if you feel unwell.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P321 Specific treatment (see on this label).
- P363 Wash contaminated clothing before reuse.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- Other hazards

- Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

* 3 Composition/information on ingredients

- Chemical characterization: Mixtures

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- Dangerous components:

CAS: 7440-02-0	Nickel Flammable Solids 2, H228; Carcinogenicity 2, H351; Specific Target Organ Toxicity - Repeated Exposure 1, H372; Sensitization - Skin 1, H317	≥ 5 – ≤ 19%
CAS: 7429-90-5	aluminium powder (stabilized) Flammable Solids 1, H228; Substances and mixtures which, in contact with water, emit flammable gases 2, H261	≥ 1 – ≤ 4%

4 First-aid measures

- Description of first aid measures

- General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation:

Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
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.

- Information for doctor:

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures

- Extinguishing media

- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

- **Special hazards arising from the substance or mixture** No further relevant information available.

- Advice for firefighters

- Protective equipment:

Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Wear protective clothing.

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

- Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to section 13.

Dispose of the collected material according to regulations.

- Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- Handling:

- **Precautions for safe handling** No special measures required.

- **Information about protection against explosions and fires:** No special measures required.

- Conditions for safe storage, including any incompatibilities

- 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.

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- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.

- Control parameters

- **Components with limit values that require monitoring at the workplace:**

CAS: 7440-02-0 Nickel

PEL Long-term value: 1 mg/m³
 REL Long-term value: 0.015 mg/m³
 as Ni; See Pocket Guide App. A
 TLV Long-term value: 1.5* mg/m³
 elemental, *inhalable fraction, A5, BEI

CAS: 7429-90-5 aluminium powder (stabilized)

PEL Long-term value: 15*; 5** mg/m³
 *Total dust; ** Respirable fraction
 REL Long-term value: 10* 5** mg/m³
 as Al*Total dust**Respirable/pyro powd./welding f.
 TLV Long-term value: 1* mg/m³
 as Al; *as respirable fraction, A4

- Ingredients with biological limit values:

CAS: 7440-02-0 Nickel

BEI 5 µg/L
 Medium: urine
 Time: post-shift at end of workweek
 Parameter: Nickel (background)

30 µg/L
 Medium: urine
 Time: post-shift at end of workweek
 Parameter: Nickel (background)

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

- Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing.
 Wash hands before breaks and at the end of work.

- Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
 Nitrile rubber, NBR

- Penetration time of glove material

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

- **Body protection:** Protective work clothing

* 9 Physical and chemical properties

- Information on basic physical and chemical properties

- General Information

- Appearance:

- **Form:** Pasty
 - **Color:** Silver grey

- **Odor:** Mild- **Odor threshold:** Not determined.

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- pH-value:	Not applicable.
- Change in condition	
- Melting point/Melting range:	Undetermined.
- Boiling point/Boiling range:	≥ 2,730 °C (≥ 36.930 °F)
- Flash point:	218.3 °C (424.9 °F)
- Flammability (solid, gaseous):	Not determined.
- Decomposition temperature:	Not determined.
- Ignition temperature:	Product is not selfigniting.
- Danger of explosion:	Product does not present an explosion hazard.
- Explosion limits:	
- Lower:	Not determined.
- Upper:	Not determined.
- Vapor pressure:	Not applicable.
- Density at 20 °C (68 °F):	≥ 2.05435 – ≤ 30.015 g/cm ³ (≥ 17.14355 – ≤ 250.47518 lbs/gal)
- Relative density	Not determined.
- Vapor density	Not applicable.
- Evaporation rate	Not applicable.
- Solubility in / Miscibility with	
- Water:	Insoluble.
- Partition coefficient (n-octanol/water):	Not determined.
- Viscosity:	
- Dynamic:	Not applicable.
- Kinematic:	Not applicable.
- Solvent content:	
- VOC content:	0.00 %
- Solids content:	100.0 %
- Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
 - **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
 - **Acute toxicity:**

- LD/LC50 values that are relevant for classification:

Oral LD50 > 9,000 mg/kg (rat)

- Primary irritant effect:

- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.

- Sensitization:

Sensitization possible through skin contact.

- Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

- Carcinogenic categories

- IARC (International Agency for Research on Cancer)

CAS: 7440-02-0 | Nickel

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- NTP (National Toxicology Program)	
CAS: 7440-02-0 Nickel	R
- OSHA-Ca (Occupational Safety & Health Administration)	
None of the ingredients is listed.	

12 Ecological information

- **Toxicity**
 - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
 - **Bioaccumulative potential** No further relevant information available.
 - **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
 - **General notes:**
 - Water hazard class 2 (Self-assessment): hazardous for water
 - Do not allow product to reach ground water, water course or sewage system.
 - Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
 - **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- UN-Number	
- DOT, IMDG, IATA	not regulated
- UN proper shipping name	
- DOT, IMDG, IATA	not regulated
- Transport hazard class(es)	
- DOT, ADN, IMDG, IATA	
- Class	not regulated
- Packing group	
- DOT, IMDG, IATA	not regulated
- Environmental hazards:	
- Marine pollutant:	No
- Special precautions for user	Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
- UN "Model Regulation":	not regulated

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **Sara**

- Section 355 (extremely hazardous substances):	
None of the ingredients is listed.	
- Section 313 (Specific toxic chemical listings):	
All ingredients are listed.	
- TSCA (Toxic Substances Control Act):	
All components have the value ACTIVE.	

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- Hazardous Air Pollutants	
None of the ingredients is listed.	
- Proposition 65	
- Chemicals known to cause cancer:	
CAS: 7440-02-0	Nickel
- Chemicals known to cause reproductive toxicity for females:	
None of the ingredients is listed.	
- Chemicals known to cause reproductive toxicity for males:	
None of the ingredients is listed.	
- Chemicals known to cause developmental toxicity:	
None of the ingredients is listed.	
- Carcinogenic categories	
- EPA (Environmental Protection Agency)	
None of the ingredients is listed.	
- TLV (Threshold Limit Value)	
CAS: 7440-02-0	Nickel A5
- NIOSH-Ca (National Institute for Occupational Safety and Health)	
CAS: 7440-02-0	Nickel
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.	

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** ND Industries, Inc. - Safety, Health and Environmental Affairs
- **Contact:** Safety, Health and Environmental Affairs
- **Classification System:**

- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

- **NFPA ratings (scale 0 - 4)**

0	1	0	Health = 0
			Fire = 1
			Reactivity = 0

- **Date of preparation / last revision** 03/21/2024

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 BEI: Biological Exposure Limit
 Flammable Solids 1: Flammable solids – Category 1
 Flammable Solids 2: Flammable solids – Category 2
 Substances and mixtures which, in contact with water, emit flammable gases 2: Substances and mixtures which in contact with water emit flammable gases – Category 2
 Sensitization - Skin 1: Skin sensitisation – Category 1
 Carcinogenicity 2: Carcinogenicity – Category 2
 Specific Target Organ Toxicity - Repeated Exposure 1: Specific target organ toxicity (repeated exposure) – Category 1

- *** Data compared to the previous version altered.**

- **Disclaimer**

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