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

1.1. Product identifier

Product Code(s) 136
Product Name NIKAL®
Chemical name
Synonyms NIKAL® Pure Nickel Anti-Seize

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

Recommended Use Lubricants, Greases and Release Products.
Uses advised against No information available.

1.3. Details of the supplier of the safety data sheet

Supplier Address Jet Lube LLC
930 Whitmore Drive
Rockwall, Texas USA 75087
TEL: +1-713-670-5700 (8am-5pm CST)
Supplier Phone Number US Office: Phone:+1-972-771-1000 Fax:+1-972-722-2108
Supplier Email Sales@jetlube.com

Importer	Manufacturer
Jet-Lube (UK) Ltd City Park, Watchmead Welwyn Garden City, Hertfordshire AL7 1LT United Kingdom	Jet Lube LLC 930 Whitmore Drive Rockwall, Texas USA 75087 TEL: +1-713-670-5700 (8am-5pm CST)

For further information, please contact.

Responsible Persons Regulatory & Laboratory Team Member(s)
E-mail Address regulatory@whitmores.com
Non-Emergency Telephone Number +1-972-771-1000 (USA Office)

+44 (0) 1707 379870 (Whitmore UK)
+1-780-463-7441 (JL Canada)

1.4. Emergency telephone number

Emergency Telephone Number 44 1628-631913

Emergency telephone §45 - (EC)1272/2008	
Europe	112
Austria	Poison Information Center (AT): +43-(0)1-406 43 43
Belgium	Poison Center (BE): +32 70 245 245
Denmark	Poison Control Hotline (DK): +45 82 12 12 12
Finland	Poison Information Centre (FI): +358 9 471 977
France	ORFILA (FR): + 01 45 42 59 59
Germany	Poison Center Berlin (DE): +49 030 30686 790 (24 h service, Advice in German and English)
Ireland	National Poisons Information Centre (IE): +353 1 8379964
Italy	Poison Center, Milan (IT): +39 02 6610 1029
Netherlands	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
Norway	Poisons Information (NO): + 47 22 591300
Poland	Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97
Portugal	Poison Information Center (PT): +351 21 330 3284
Spain	Poison Information Service (ES): +34 91 562 04 20
Sweden	Poisons Information Center (SV): +46 8 33 12 31
Switzerland	Poison Center (CH): Tel 145: +41 44 251 51 51
United Kingdom	NHS Direct (UK): +44 0845 46 47

Section 2: Hazards Identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin sensitization	Category 1 - (H317)
Carcinogenicity	Category 2 - (H351)
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements



Signal word

Warning

Hazard Statements

H317 - May cause an allergic skin reaction
 H351 - Suspected of causing cancer
 H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear eye protection/ face protection
 P321 - Specific treatment (see supplemental first aid instructions on this label)
 P201 - Obtain special instructions before use
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P308 + P313 - IF exposed or concerned: Get medical advice/attention
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P314 - Get medical advice/attention if you feel unwell
 P501 - Dispose of contents/container to industrial incineration plant

Additional information

This product requires tactile warnings if supplied to the general public
 This product requires child resistant fastenings if supplied to the general public

2.3. Other hazards

No information available

Section 3: Composition/Information

3.1 Substances

Not applicable.

3.2 Mixtures

Chemical Name	EC No	CAS-No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Reg. No.
Lubricating greases A complex combination of hydrocarbons having carbon numbers predominantly in the range of C12 through C50. may contain organic salts of alkali metals, alkaline earth metals, etc.	278-011-7	74869-21-9	75-80	No data available	No data available
Nickel metal powder (particle diameter <1mm)	231-111-4	7440-02-0	15-20	STOT RE 1 (H372) Carc. 2 (H351) Skin Sens. 1 (H317) Aquatic Chronic 3 (H412)	01-2119438727-29-XXXX
Mica	310-127-6	12001-26-2	1-5	No data available	No data available

Full text of H- and EUH-phrases: see section 16

Note

The producer of "74869-21-9" declares that it contains less than 3% DMSO extractable material by IP-346 The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346. This note applies only to certain complex oil derived substances in Annex I

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Section 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.
Inhalation	Remove to fresh air.
Skin contact	Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

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

Symptoms Itching. Rashes. Hives.

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

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

Product is or contains a sensitizer. May cause sensitization by skin contact.

Hazardous Combustion Products

Carbon oxides.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use

personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other Information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Should not be released into the environment. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

General Hygiene Considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

Section 8: Exposure control/personal protection equipment

8.1. Control parameters

Exposure Limits

Chemical Name	EU	United Kingdom	France	Spain	Germany
Nickel metal powder (particle diameter <1mm) 7440-02-0	-	TWA: 0.5 mg/m ³ STEL: 1.5 mg/m ³ Skin	TWA: 1 mg/m ³ Carc*	TWA: 1 mg/m ³ Sen* Carc*	TWA: 0.006 mg/m ³

Mica 12001-26-2	-	STEL: 2.4 mg/m ³ STEL: 30 mg/m ³ TWA: 0.8 mg/m ³ TWA: 10 mg/m ³	-	TWA: 3 mg/m ³	-
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Nickel metal powder (particle diameter <1mm) 7440-02-0	TWA: 1.5 mg/m ³ Carc*	TWA: 1.5 mg/m ³ Carc*	-	TWA: 1 mg/m ³	TWA: 0.05 mg/m ³ Carc*
Mica 12001-26-2	TWA: 3 mg/m ³	TWA: 3 mg/m ³	-	-	-
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Nickel metal powder (particle diameter <1mm) 7440-02-0	TEL STEL: 2 mg/m ³ TEL TWA: 0.5 mg/m ³ SkSen* RspSen* Carc*	TWA: 0.5 mg/m ³ Sen* Carc*	TWA: 0.25 mg/m ³	TWA: 0.05 mg/m ³ STEL: 0.05 mg/m ³ Sen* Carc* Repr*	TWA: 0.5 mg/m ³ STEL: 1.5 mg/m ³
Mica 12001-26-2	TWA: 10 mg/m ³	TWA: 3 mg/m ³	-	TWA: 6 mg/m ³ TWA: 3 mg/m ³ STEL: 6 mg/m ³ STEL: 3 mg/m ³	TWA: 10 mg/m ³ TWA: 0.8 mg/m ³ STEL: 30 mg/m ³ STEL: 2.4 mg/m ³
Chemical name	Romania	Ukraine TLVs	Sweden TLVs	Hungary	Turkey TLVs
Nickel metal powder (particle diameter <1mm) 7440-02-0	TWA: 0.1 mg/m ³ STEL: 0.5 mg/m ³			Ceiling: 0.1 mg/m ³ Ceiling: 0.01 mg/m ³	
Mica 12001-26-2	TWA: 3 mg/m ³				

Biological occupational exposure limits

Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
Nickel metal powder (particle diameter <1mm) 7440-02-0	-	-	-	0.1 µmol/L urine end of shift at end of workweek Nickel	-
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Nickel metal powder (particle diameter <1mm) 7440-02-0	7 µg/L urine after end of work day, at the end of a work week/ end of the shift spontaneous urine only appropriate for urine samples with specific weight >=1010 mg/mL lung function based on determining, forced vital	45	-	-	3 µg/L urine after several consecutive working shifts Nickel

	capacity (FVC), 1 sec - capacitor (FEV1), FEV1%FVC, MEF50				
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Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2. Exposure controls

Personal protective equipment

- Eye/face protection** Wear safety glasses with side shields (or goggles).
- Hand Protection** Wear suitable gloves. Protective gloves. Nitrile rubber.
- Skin and body protection** Wear suitable protective clothing.

Environmental exposure controls No information available.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Paste / Gel
Appearance Silver Gray
Odor Petroleum
Color No information available
Odor Threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	7		
Melting / freezing point	>232 °C	None known	
Boiling point / boiling range	260 °C		
Flash Point	> 221 °C		
Evaporation Rate	No data available	None known	
Flammability (solid, gas)	No data available	None known	
Flammability Limit in Air		None known	
Upper flammability limit	No data available		
Lower flammability limit	No data available		
Vapor pressure	No data available	None known	
Vapor density	No data available	None known	
Relative density	1.12		
Water Solubility	Insoluble in water		
Solubility(ies)	No data available	None known	
Partition coefficient: n-octanol/water	Not Applicable		
Autoignition temperature	No data available	None known	
Decomposition temperature	No data available	None known	
Kinematic viscosity	No data available	None known	
Viscosity	No data available	None known	

9.2. Other information

Softening Point No information available



Molecular Weight	No information available
VOC Content (%)	None
Liquid Density	No information available
Bulk Density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

Section 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

Explosion Data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

10.3. Possibility of hazardous reactions

Possibility of Hazardous Reactions None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Carbon oxides.

Section 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Information on toxicological effects



Symptoms Itching. Rashes. Hives.

Numerical measures of toxicity

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 2,280.00 mg/kg

Unknown acute toxicity

- 100 % of the mixture consists of ingredient(s) of unknown toxicity
- 23 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	Inhalation LC50
Lubricating greases A complex combination of hydrocarbons having carbon numbers predominantly in the range of C12 through C50. may contain organic salts of alkali metals, alkaline earth metals, etc.	= 2280 mg/kg (Rat)		
Nickel metal powder (particle diameter <1mm)	> 9000 mg/kg (Rat)		

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization May cause sensitization by skin contact.

Germ cell mutagenicity No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

The table below indicates whether each agency has listed any ingredient as a carcinogen

Chemical Name	EU - Annex VI Carcinogens
Nickel metal powder (particle diameter <1mm)	Category 3

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Causes damage to the following organs through prolonged or repeated exposure: Respiratory system.

Aspiration hazard No information available.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity Toxic to aquatic life with long lasting effects. .

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Lubricating greases A complex combination of hydrocarbons having carbon numbers predominantly in the range of C12 through C50. may contain organic salts of alkali metals, alkaline earth metals, etc.	>1001 mg/l	96h LC50: > 2000 mg/L (Salmo gairdneri)	-	
Nickel metal powder (particle diameter <1mm)	EC50 72 h: = 0.18 mg/L (Pseudokirchneriella subcapitata) EC50 96 h: 0.174 - 0.311 mg/L static (Pseudokirchneriella subcapitata)	LC50 96 h: > 100 mg/L (Brachydanio rerio) LC50 96 h: = 1.3 mg/L semi-static (Cyprinus carpio) LC50 96 h: = 10.4 mg/L static (Cyprinus carpio)	-	EC50 48 h: > 100 mg/L (Daphnia magna) EC50 48 h: = 1 mg/L Static (Daphnia magna)

12.2. Persistence and degradability

Persistence and Degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation No information available.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

Chemical Name	PBT and vPvB assessment
Nickel metal powder (particle diameter <1mm)	The substance is not PBT / vPvB PBT assessment does not apply

12.6. Other adverse effects

Other adverse effects No information available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging No information available.

Section 14: Transport information

IMDG Not regulated
14.1 UN Number Not regulated
14.2 Proper Shipping Name NOT REGULATED
14.3 Hazard Class (select) Not regulated
14.4 Packing Group (select) Not regulated
14.5 Marine Pollutant Not applicable
14.6 Special Provisions None
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code No information available

RID NOT REGULATED
14.1 UN-No. NOT REGULATED
14.2 Proper Shipping Name NOT REGULATED
14.3 Hazard Class NOT REGULATED
14.4 Packing Group NOT REGULATED
14.5 Environmental hazard Not applicable
14.6 Special Provisions None

ADR NOT REGULATED
14.1 UN-No. NOT REGULATED
14.2 Proper Shipping Name NOT REGULATED
14.3 Hazard Class NOT REGULATED
14.4 Packing Group NOT REGULATED
14.5 Environmental hazard Not applicable
14.6 Special Provisions None

IATA Not regulated
14.1 UN Number Not regulated
14.2 Proper Shipping Name NON REGULATED
14.3 Hazard Class (select) Not regulated
14.4 Packing Group (select) Not regulated
14.5 Environmental hazard Not applicable
14.6 Special Provisions None

Section 15: Regulatory information

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

National regulations

France

Occupational Illnesses (R-463-3, France)

Chemical Name	French RG number	Title
Nickel metal powder (particle diameter <1mm) 7440-02-0	RG 37ter RG 37,RG 37bis	-
Mica 12001-26-2	RG 25	-

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical Name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Nickel metal powder (particle diameter <1mm) - 7440-02-0	Use restricted. See item 27.	

Persistent Organic Pollutants

Not applicable.

Dangerous substance category per Seveso Directive (2012/18/EU)

E2 - Hazardous to the Aquatic Environment in Category Chronic 2

Named dangerous substances per Seveso Directive (2012/18/EU)

Chemical Name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Nickel metal powder (particle diameter <1mm) - 7440-02-0		1

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable.

International Inventories

TSCA	Contact supplier for inventory compliance status.
DSL/NDSL	Complies.
EINECS/ELINCS	Complies.
ENCS	Contact supplier for inventory compliance status.
IECSC	Contact supplier for inventory compliance status.
KECL	Not determined.
PICCS	Complies.
AICS	Contact supplier for inventory compliance status.

Legend



TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

No information available.

Section 16: Other Information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under sections 2 and 3

H372 - Causes damage to organs through prolonged or repeated exposure if inhaled
H351 - Suspected of causing cancer if inhaled
H317 - May cause an allergic skin reaction
H412 - Harmful to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorization:

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	-	Skin designation

Key literature references and sources for data

www.ChemADVISOR.com/

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release 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 or in any process, unless specified in the text.

End of Safety Data Sheet