SAFETY DATA SHEET

1. Identification

Product identifier **Nickel Anti-Seize Compound**

Product Code 301684

Other means of identification

Product Code 301684

Recommended use of the chemical and restrictions on use

Recommended use Anti-Seize Compound

Restrictions on use Not available.

Details of manufacturer or importer

Calumet Branded Products, LLC
GPO Darling Park Towers 2 201 Sussex St. Sydney AU NSW 2000 Australia
2780 Waterfront Pkwy E. Dr., Suite 200 Indianapolis, IN 46214
1 317 328 5660
CHEMTREC: 1800 069 100 (AUS)

2. Hazard(s) identification

Classification of the hazardous chemical

Physical hazards	Not classified.	
Health hazards	Serious eye damage/eye irritation	Category 2A
	Sensitization, skin	Category 1
	Specific target organ toxicity, repeated exposure	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 3

Label elements, including precautionary statements

Hazard symbol(s)

Health hazard Exclamation mark Environment

Signal word Danger

Hazard statement(s) May cause an allergic skin reaction. Causes serious eye irritation. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear eye protection/face protection. Wear protective gloves.

Response IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Wash contaminated clothing before reuse. Collect spillage.

Storage Store away from incompatible materials.

Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards which do not result in classification	None known.
Supplemental information	82.79% of the mixture consists of component(s) of unknown acute oral toxicity. 97.57% of the mixture consists of component(s) of unknown acute dermal toxicity. 57.8% of the mixture consists of component(s) of unknown acute inhalation toxicity. 63.97% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 63.97% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 55.77% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment. 55.77% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition / information on ingredients

Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
NICKEL AND COMPOUNDS	7440-02-0	20 - < 30
Distillates (petroleum), Hydrotreated Heavy Paraffinic	64742-54-7	10 - < 20
Distillates (petroleum), Solvent-dewaxed Heavy Paraffinic	64742-65-0	10 - < 20
Graphite	7782-42-5	10 - < 20
Residual Oils (petroleum), Solvent-refined	64742-01-4	10 - < 20
Distillates (petroleum), Hydrotreated Heavy Naphthenic	64742-52-5	5 - < 10
Aluminum, (benzoato-o,o)hydroxy(octadecanoato-o,o)-	54326-11-3	3 - < 5
Limestone	1317-65-3	3 - < 5
White Mineral Oil (petroleum)	8042-47-5	1 - < 3
Other components below reportable levels		1 - < 3

4. First-aid measures

Description of necessary first aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Personal protection for first-aid responders	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.
Symptoms caused by exposure	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.
Medical attention and special treatment	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Dry sand.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire. Carbon dioxide (CO2).
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for fire fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Wear suitable protective equipment.
Hazchem code	None.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
For emergency responders	Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
Methods and materials for containment and cleaning up	Prevent entry into waterways, sewer, basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Precautions for safe handling	Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls and personal protection

Control parameters	Follow standard monitoring procedures.

Occupational exposure limits

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Components	Type	Value
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5 mg/m3
Distillates (petroleum), Hydrotreated Heavy Paraffinic (CAS 64742-54-7)	TWA	5 mg/m3
Distillates (petroleum), Solvent-dewaxed Heavy Paraffinic (CAS 64742-65-0)	TWA	5 mg/m3
NICKEL AND COMPOUNDS (CAS 7440-02-0)	TWA	0.1 mg/m3
White Mineral Oil (petroleum) (CAS 8042-47-5)	TWA	5 mg/m3

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Components	Type	Value	Form
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5 mg/m3	Mist.
Distillates (petroleum), Hydrotreated Heavy Paraffinic (CAS 64742-54-7)	TWA	5 mg/m3	Mist.
Distillates (petroleum), Solvent-dewaxed Heavy Paraffinic (CAS 64742-65-0)	TWA	5 mg/m3	Mist.
Limestone (CAS 1317-65-3)	TWA	10 mg/m3	Inspirable dust.
NICKEL AND COMPOUNDS (CAS 7440-02-0)	TWA	1 mg/m3	
Residual Oils (petroleum), Solvent-refined (CAS 64742-01-4)	TWA	5 mg/m3	Mist.
White Mineral Oil (petroleum) (CAS 8042-47-5)	TWA	5 mg/m3	Mist.

ACGIH

Components	Type	Value	Form
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5 mg/m3	Inhalable Fraction.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Aluminum, (benzoato-o,o)hydroxy(octadecanoato-o,o)- (CAS 54326-11-3)	TWA	1 mg/m3	Respirable fraction.
NICKEL AND COMPOUNDS (CAS 7440-02-0)	TWA	1.5 mg/m3	Inhalable fraction.
White Mineral Oil (petroleum) (CAS 8042-47-5)	TWA	5 mg/m3	Inhalable fraction.

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Limestone (CAS 1317-65-3)	TWA	4 mg/m3	Respirable.
		4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable
		10 mg/m3	Inhalable dust.
NICKEL AND COMPOUNDS (CAS 7440-02-0)	TWA	0.5 mg/m3	

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value	Form
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5 mg/m3	Respirable fraction.

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Type	Value	Form
Distillates (petroleum), Hydrotreated Heavy Paraffinic (CAS 64742-54-7)	TWA	5 mg/m3	Respirable fraction.
Distillates (petroleum), Solvent-dewaxed Heavy Paraffinic (CAS 64742-65-0)	TWA	5 mg/m3	Respirable fraction.
Residual Oils (petroleum), Solvent-refined (CAS 64742-01-4)	TWA	5 mg/m3	Respirable fraction.
White Mineral Oil (petroleum) (CAS 8042-47-5)	TWA	5 mg/m3	Respirable fraction.

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.

Individual protection measures, for example personal protective equipment (PPE)

Eye/face protection Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color Not available.

Odor Not available.

Odor threshold Not available.

pH Not available.

Melting point/freezing point 2651 °F (1455 °C) estimated

Initial boiling point and boiling range 680 °F (360 °C) estimated

Flash point 275.0 °F (135.0 °C) estimated

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	287 cSt
Viscosity temperature	104 °F (40 °C)
Other physical and chemical parameters	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Percent volatile	0.03 % estimated
Specific gravity	1.25

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
Incompatible materials	Strong acids.
Hazardous decomposition products	Toxic gas. Nitrogen oxides (NOx).

11. Toxicological information

Information on possible routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to exposure	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause an allergic skin reaction. Dermatitis. Rash.
Acute toxicity	Not known.

Components	Species	Test Results
Graphite (CAS 7782-42-5)		
Acute		
Oral		
LD50	Rat	> 10000 mg/kg

Skin corrosion/irritation	Due to partial or complete lack of data the classification is not possible.
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Risk of cancer cannot be excluded with prolonged exposure.

ACGIH Carcinogens

Aluminum, (benzoato-o,o)hydroxy(octadecanoato-o,o)- (CAS 54326-11-3)	A4 Not classifiable as a human carcinogen.
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	A4 Not classifiable as a human carcinogen.
Distillates (petroleum), Hydrotreated Heavy Paraffinic (CAS 64742-54-7)	A4 Not classifiable as a human carcinogen.
Distillates (petroleum), Solvent-dewaxed Heavy Paraffinic (CAS 64742-65-0)	A4 Not classifiable as a human carcinogen.
NICKEL AND COMPOUNDS (CAS 7440-02-0)	A5 Not suspected as a human carcinogen.
Residual Oils (petroleum), Solvent-refined (CAS 64742-01-4)	A2 Suspected human carcinogen.
	A4 Not classifiable as a human carcinogen.
White Mineral Oil (petroleum) (CAS 8042-47-5)	A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

NICKEL AND COMPOUNDS (CAS 7440-02-0)	2B Possibly carcinogenic to humans.
White Mineral Oil (petroleum) (CAS 8042-47-5)	3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard Based on available data, the classification criteria are not met.

Chronic effects Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Product		Species	Test Results
Nickel Anti-Seize Compound			
Aquatic			
Crustacea	EC50	Daphnia	4.9995 mg/l, 48 hours estimated
Fish	LC50	Fish	430.6137 mg/l, 96 hours estimated

Components		Species	Test Results
NICKEL AND COMPOUNDS (CAS 7440-02-0)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	2.923 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential No data available.

Mobility in soil No data available for this product.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal methods Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

ADG

UN number	3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NICKEL AND COMPOUNDS)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
Hazchem code	•3Z
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

RID

UN number	3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NICKEL AND COMPOUNDS)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Label(s)	9
Packing group	III
Environmental hazards	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number	3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (NICKEL AND COMPOUNDS)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
ERG Code	9L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (NICKEL AND COMPOUNDS), MARINE POLLUTANT
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	Yes
EmS	F-A, S-F
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

ADG; IATA; IMDG; RID

Marine pollutant

General information IMDG Regulated Marine Pollutant.

15. Regulatory information

Safety, health and environmental regulations

National regulations This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals (23/12/2011).

Australia Medicines & Poisons Appendix E

White Mineral Oil (petroleum) (CAS 8042-47-5)

Australia Medicines & Poisons Schedule 5

White Mineral Oil (petroleum) (CAS 8042-47-5)

Australia National Pollutant Inventory (NPI): Threshold quantity

NICKEL AND COMPOUNDS (CAS 7440-02-0)	10 TONNES/YR Threshold Category: 1

High Volume Industrial Chemicals (HVIC)

Distillates (petroleum), Hydrotreated Heavy Paraffinic (CAS 64742-54-7)	1000 - 9999 TONNES See the regulation for additional information.
Distillates (petroleum), Solvent-dewaxed Heavy Paraffinic (CAS 64742-65-0)	10000 - 99999 TONNES See the regulation for additional information.
Graphite (CAS 7782-42-5)	1000 - 9999 TONNES See the regulation for additional information.
NICKEL AND COMPOUNDS (CAS 7440-02-0)	1000 - 9999 TONNES See the regulation for additional information.
White Mineral Oil (petroleum) (CAS 8042-47-5)	1000 - 9999 TONNES See the regulation for additional information.

National Pollutant Inventory (NPI) substance reporting list

Graphite (CAS 7782-42-5)	2000 TONNES/YR Threshold Category: 2B 400 TONNES/YR Threshold Category: 2A
NICKEL AND COMPOUNDS (CAS 7440-02-0)	2000 TONNES/YR Threshold Category: 2B

International regulations

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date 03-15-2017

Revision date 11-02-2018

Disclaimer Calumet Branded Products, LLC cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information This document has undergone significant changes and should be reviewed in its entirety.