SAFETY DATA SHEET

1. Identification

Product identifier **Nickel Anti-Seize Lubricant**

Other means of identification 77028, 77226, 77124, 77164, 77454

Recommended use Lubricant

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name ITW Permatex Canada

Address c/o ITW Global Brands Canada
2360 Bristol Circle, Suite 101
Oakville, ON L6H 6M5

Telephone (905) 693-8900

E-mail CanadaCS@itwgb.com

Emergency phone number 800-255-3924 (Chem-Tel)

Supplier See above.

2. Hazard identification

Physical hazards Not classified.

Health hazards

Sensitization, skin	Category 1
Carcinogenicity	Category 1B
Specific target organ toxicity following repeated exposure	Category 1

Environmental hazards Not classified.

Label elements

Signal word Danger

Hazard statement May cause an allergic skin reaction. May cause cancer. Causes damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention Do not breathe mist or vapour. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, protective clothing, eye protection and face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Response IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention. Specific treatment (see information on this label). Take off contaminated clothing and wash it before reuse. IF exposed or concerned: Get medical attention.

Storage Store locked up.

Disposal Dispose of container in accordance with local, regional, national and international regulations.

Other hazards None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Distillates (petroleum), solvent-refined heavy naphthenic		64741-96-4	45-70
Nickel		7440-02-0	10-30

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments	CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Skin contact	IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention. Specific treatment (see information on this label). Take off contaminated clothing and wash it before reuse.
Eye contact	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
Ingestion	Rinse mouth. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious or is convulsing. Obtain medical attention.
Most important symptoms/effects, acute and delayed	May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical attention. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire-fighting measures

Suitable extinguishing media	Dry sand. Carbon dioxide. Foam.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Oxides of aluminum. Oxides of nickel.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	This product is miscible in water. 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. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Observe good industrial hygiene practices. When using do not eat or drink.

Conditions for safe storage, including any incompatibilities	Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

8. Exposure controls/Personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)	TWA	5 mg/m3	Inhalable fraction.
Nickel (CAS 7440-02-0)	TWA	1.5 mg/m3	Inhalable fraction.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Nickel (CAS 7440-02-0)	TWA	1.5 mg/m3	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)	TWA	1 mg/m3	Mist.
Nickel (CAS 7440-02-0)	TWA	0.05 mg/m3	

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)	TWA	5 mg/m3	Inhalable fraction.
Nickel (CAS 7440-02-0)	TWA	1.5 mg/m3	Inhalable fraction.

Canada. New Brunswick OELs: Threshold Limit Values (TLVs) Based on the 1991 and 1997 ACGIH TLVs and BEIs Publication (New Brunswick Regulation 91-191), as amended

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Nickel (CAS 7440-02-0)	TWA	1 mg/m3	Inhalable

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)	TWA	5 mg/m3	Inhalable fraction.
Nickel (CAS 7440-02-0)	TWA	1 mg/m3	Inhalable fraction.

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Nickel (CAS 7440-02-0)	TWA	1.5 mg/m3	Inhalable dust.

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value	Form
Distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)	15 minute	10 mg/m3	
	8 hour	5 mg/m3	
Nickel (CAS 7440-02-0)	15 minute	3 mg/m3	Inhalable fraction.
	8 hour	1.5 mg/m3	Inhalable fraction.

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Nickel (CAS 7440-02-0)	5 µg/l	Nickel	Urine	*

* - For sampling details, please see the source document.

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.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Impervious gloves. Confirm with reputable supplier first.

Other Wear appropriate chemical resistant clothing. As required by employer code.

Respiratory protection Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards Not applicable.

General hygiene considerations 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. When using do not eat or drink.

9. Physical and chemical properties

Appearance Liquid Paste

Physical state Liquid.

Form Liquid.

Colour Silver

Odour Petroleum

Odour threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point > 204.0 °C (> 399.2 °F)

Evaporation rate < 1 (Butyl acetate = 1(

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.

Vapour pressure Not available.

Vapour density Not available.

Relative density 1.12

Solubility(ies)

Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

Other information

Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

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. Do not mix with other chemicals.
Incompatible materials	Strong acids. Chlorine.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of aluminium. Oxides of nickel.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	May cause an allergic skin reaction.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Symptoms related to the physical, chemical and toxicological characteristics	May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity See below.

Components	Species	Test Results
Distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg, 24 Hours, ECHA
Inhalation		
LC50	Rat	2.2 mg/L, 4 Hours
Oral		
LD50	Rat	5000 mg/kg, ECHA
Nickel (CAS 7440-02-0)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Rat	2550 mg/m3, 4 h, CCOHS
Oral		
LD50	Rat	> 9000 mg/kg, ECHA

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Exposure minutes	Not available.
Erythema value	Not available.
Oedema value	Not available.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.

Corneal opacity value	Not available.
Iris lesion value	Not available.
Conjunctival reddening value	Not available.
Conjunctival oedema value	Not available.
Recover days	Not available.

Respiratory or skin sensitisation

Respiratory sensitisation	Not a respiratory sensitizer.
Skin sensitisation	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	May cause cancer. See below.

IARC Monographs. Overall Evaluation of Carcinogenicity

Distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)	Volume 33, Supplement 7 - 3 Not classifiable as to carcinogenicity to humans.
Nickel (CAS 7440-02-0)	Volume 49 - 2B Possibly carcinogenic 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	Not an aspiration hazard.
Chronic effects	Causes damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.
Further information	Not available.

12. Ecological information

Ecotoxicity See below

Ecotoxicological data

Components		Species	Test Results
Distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)			
Crustacea	EC50	Daphnia	1000 mg/L, 48 Hours
Nickel (CAS 7440-02-0)			
Algae	IC50	Algae	0.18 mg/L, 72 Hours
Crustacea	EC50	Daphnia	100 mg/L, 48 Hours
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.
Mobility in general	Not available.
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 instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of container in accordance with local, regional, national and international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	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

General IMDG Regulated Marine Pollutant. Canada: TDG Proof of Classification: Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

15. Regulatory information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

WHMIS status Hazardous

International regulations

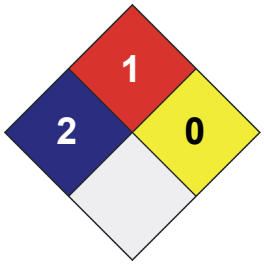
Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0



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Other information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

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