

SAFETY DATA SHEET

in accordance with 29 CFR 1910.1200, WHMIS 2022 and Safe Work Australia

Revision date: 13 January 2025 **Date of previous issue:** 24 September 2020 **SDS No.** 157B-30

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

725 Nickel Anti-Seize Compound (Bulk)

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

Relevant identified uses: Petroleum base. Use on stainless steel, steel, iron, aluminum, copper, brass, titanium, etc. Do not use on oxygen systems.

Uses advised against: No information available

Reason why uses advised against: Not applicable

1.3. Details of the supplier of the safety data sheet

Company:

A.W. CHESTERTON COMPANY
860 Salem Street
Groveland, MA 01834-1507, USA
Tel. +1 978-469-6446
(Mon. - Fri. 8:30 - 5:00 PM EST)
SDS requests: www.chesterton.com
E-mail (SDS questions): ProductSDSs@chesterton.com
E-mail: customer.service@chesterton.com

Supplier:

Canada: A.W. Chesterton Company Ltd., 889 Fraser Drive,
Unit 105, Burlington, Ontario L7L 4X8 – Tel. 905-335-5055

1.4. Emergency telephone number

24 hours per day, 7 days per week
Call Infotrac: 1-800-535-5053
Outside N. America: +1 352-323-3500 (collect)
NSW Poisons Information Centre (Australia): 13 11 26

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

2.1.1. Classification according to 29 CFR 1910.1200 / WHMIS 2022 / Safe Work Australia / GHS

Skin sensitization, Category 1, H317
Carcinogenicity, Category 2, H351 (inhalation)
Specific target organ toxicity – repeated exposure, Category 1, H372 (lungs, inhalation)
Hazardous to the aquatic environment, Chronic, Category 3, H412

2.1.2. Additional information

For full text of H-statements: see SECTIONS 2.2 and 16.

2.2. Label elements

Labeling according to 29 CFR 1910.1200 / WHMIS 2022 / Safe Work Australia / GHS

Hazard pictograms:



Signal word:

Danger

| | | |
|----------------------------------|--|--|
| Hazard statements: | H317 | May cause an allergic skin reaction. |
| | H351 | Suspected of causing cancer by inhalation. |
| | H372 | Causes damage to the lungs through prolonged or repeated exposure by inhalation. |
| | H412 | Harmful to aquatic life with long lasting effects. |
| Precautionary statements: | P201 | Obtain special instructions before use. |
| | P202 | Do not handle until all safety precautions have been read and understood. |
| | P264 | Wash hands, face and any exposed skin 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. |
| | P273 | Avoid release to the environment. |
| | P280 | Wear protective gloves. |
| | P302/352 | IF ON SKIN: Wash with plenty of soap and water. |
| | P308/313 | IF exposed or concerned: Get medical advice/attention. |
| P362/364 | Take off contaminated clothing and wash it before reuse. | |
| P501 | Dispose of contents/container to an approved waste disposal plant. | |
| Supplemental information: | None | |

2.3. Other hazards

None known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixtures**

| Hazardous Ingredients ¹ | % Wt. | CAS No. | GHS Classification |
|--|---------|------------|--|
| Distillates (petroleum), hydrotreated heavy naphthenic** | 35-45 | 64742-52-5 | Asp. Tox. 1, H304 |
| Nickel | 25-30 | 7440-02-0 | Carc. 2, H351 (inhalation) STOT RE 1, H372 (lungs, inhalation) Skin Sens. 1, H317 Aquatic Chronic 3, H412 |
| Naphtha (petroleum), hydrotreated heavy* | 1-3 | 64742-48-9 | Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 |
| Solvent naphtha (petroleum), light aromatic* | 1-2 | 64742-95-6 | Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H335, H336 Aquatic Chronic 2, H411 |
| Methanol | 0.1-0.3 | 67-56-1 | Flam. Liq. 2, H225 Acute Tox. 3, H331, H311, H301 Eye Irrit. 2A, H319 STOT SE 1, H370 |

Other ingredients:

| | | | |
|----------|------|-----------|-----------------------------|
| Aluminum | 5-10 | 7429-90-5 | Not classified ^a |
| Graphite | 1-5 | 7782-42-5 | Not classified*** |

For full text of H-statements: see SECTION 16.

*Contains less than 0.1 % w/w Benzene. **Contains less than 3 % DMSO extract as measured by IP 346.

Substance with a workplace exposure limit. ^a Not classified for flammability and water-reactivity based on the results of UN tests N.1 and N.5, respectively.¹ Classified according to: 29 CFR 1910.1200, 1915, 1916, 1917, Mass. Right-to-Know Law (ch. 40, M.G.L.O. 111F), WHMIS 2022, Safe Work Australia, GHS**SECTION 4: FIRST AID MEASURES*4.1. Description of first aid measures**

| | |
|------------------------------------|--|
| Inhalation: | Remove to fresh air. If not breathing, administer artificial respiration. Contact physician. |
| Skin contact: | Wash skin with soap and water. Take off contaminated clothing and wash it before reuse. Contact physician if irritation persists. |
| Eye contact: | Flush eyes for at least 15 minutes with large amounts of water. Contact physician if irritation persists. |
| Ingestion: | Do not induce vomiting. Contact physician immediately. |
| Protection of first-aiders: | No action shall be taken involving any personal risk or without suitable training. Avoid contact with the product while providing aid to the victim. See section 8.2.2 for recommendations on personal protective equipment. |

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

High vapor concentrations and direct contact may cause eye and respiratory tract irritation. Prolonged or repeated skin contact may cause mild irritation. May cause skin sensitization as evidenced by rashes or hives.

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

Treat symptoms.

SECTION 5: FIRE-FIGHTING MEASURES**5.1. Extinguishing media**

Suitable extinguishing media: Carbon dioxide, dry chemical, foam or water fog

Unsuitable extinguishing media: High volume water jet

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: Carbon Monoxide, Carbon Dioxide and other toxic fumes.

Other hazards: None

5.3. Advice for firefighters

Cool exposed containers with water. Recommend Firefighters wear self-contained breathing apparatus.

Australian HAZCHEM Emergency Action Code: 2 Z

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Utilize exposure controls and personal protection as specified in Section 8.

6.2. Environmental Precautions

Keep out of sewers, streams and waterways.

6.3. Methods and material for containment and cleaning up

Scoop up and transfer to a suitable container for disposal.

6.4. Reference to other sections

Refer to section 13 for disposal advice.

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

Observe good work practice - avoid eating, drinking and smoking in the work area while using any hydrocarbons. Utilize exposure controls and personal protection as specified in Section 8. Remove contaminated clothing and wash before reuse. Contaminated work clothing must not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry area.

7.3. Specific end use(s)

No special precautions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters****Occupational exposure limit values**

| Ingredients | OSHA PEL ¹ | | ACGIH TLV ² | | AUSTRALIA ES ³ | |
|---|-----------------------|-------------------|------------------------|-------------------|---------------------------|-------------------|
| | ppm | mg/m ³ | ppm | mg/m ³ | ppm | mg/m ³ |
| Oil mist, mineral | N/A | 5 | (inhal.) | 5 | N/A | 5 |
| Nickel* | (total dust) | 1 | (inhal.) | 1.5 | (total dust) | 1 |
| Naphtha (petroleum), hydrotreated heavy | N/A | N/A | N/A | N/A | N/A | N/A |
| Solvent naphtha (petroleum), light aromatic | N/A | N/A | N/A | N/A | N/A | N/A |
| Methanol | 200 | 260 | 200 | (skin) | 200 (skin) | 262 |
| | | | STEL: | | STEL: | |
| | | | 250 | | 250 | 328 |
| Aluminum* | (total) | 15 | (resp.) | 1 | N/A | 10 |
| | (resp.) | 5 | | | | |
| Graphite* | (total) | 15 | (resp.) | 2 | (resp.) | 3 |
| | (resp.) | 5 | | | | |

*The nickel, aluminum and graphite in this product do not separate from the mixture or in of themselves become airborne, therefore, do not present a hazard in normal use.

¹ United States Occupational Health & Safety Administration permissible exposure limits

² American Conference of Governmental Industrial Hygienists threshold limit values

³ Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants

Biological limit values

Methanol:

| Control parameter | Biological specimen | Sampling Time | Limit value | Source | Notes |
|-------------------|---------------------|---------------|-------------|--------|-------------------------|
| Methanol | Urine | End of shift | 15 mg/l | ACGIH | Background, Nonspecific |

8.2. Exposure controls**8.2.1. Engineering measures**

No special requirements. If exposure limits are exceeded, provide adequate ventilation.

8.2.2. Individual protection measures

Respiratory protection: Not normally needed. If exposure limits are exceeded, use approved organic vapor respirator (e.g., EN filter type A/P2).

Protective gloves: Chemical resistant gloves (e.g., nitrile rubber)

Nickel:

| Contact type | Glove material | Layer thickness | Breakthrough time* |
|--------------|----------------|-----------------|--------------------|
| Full | Nitrile rubber | 0.11 mm | > 480 min. |
| Splash | Nitrile rubber | 0.11 mm | > 480 min. |

*Determined according to EN374 standard.

Eye and face protection: Safety glasses

Other: None

8.2.3. Environmental exposure controls

Refer to sections 6 and 12.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

| | | | |
|---|----------------|--|---------------------|
| Physical state | paste | pH | not applicable |
| Colour | gray | Kinematic viscosity | 1 million cps @25°C |
| Odour | petroleum odor | Solubility in water | negligible |
| Odour threshold | not determined | Partition coefficient | not applicable |
| | | n-octanol/water (log value) | |
| Boiling point or range | not determined | Vapour pressure @ 20°C | not determined |
| Melting point/freezing point | not determined | Density and/or relative density | 1.29 kg/l |
| % Volatile (by volume) | 5% | Weight per volume | 10.7 lbs/gal |
| Flammability | not determined | Vapour density (air=1) | > 1 |
| Lower/upper flammability or explosion limits | not determined | Rate of evaporation (ether=1) | < 1 |
| Flash point | 95°C (204°F) | % Aromatics by weight | approx. 0.28% |
| Method | PM Closed Cup | Particle characteristics | not applicable |
| Autoignition temperature | not determined | Explosive properties | not applicable |
| Decomposition temperature | not determined | Oxidising properties | not determined |

9.2. Other information

None

SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

No data available for the mixture. Nickel can react vigorously with acids to liberate hydrogen, which can form explosive mixtures with air.

10.2. Chemical stability

Stable

10.3. Possibility of hazardous reactions

No dangerous reactions known under conditions of normal use.

10.4. Conditions to avoid

Open flames, heat, sparks and red hot surfaces.

10.5. Incompatible materials

Strong acids, alkalis and strong oxidizers like liquid Chlorine and concentrated Oxygen; alcohols, halogenated compounds.

10.6. Hazardous decomposition products

Carbon Monoxide, Carbon Dioxide and other toxic fumes.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

Primary route of exposure under normal use: Inhalation, skin and eye contact.

Acute toxicity -**Oral:**

| Substance | Test | Result |
|--|-------------------|---------------------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | LD50, rat | > 5000 mg/kg, estimated |
| Nickel | LD50, rat | > 9000 mg/kg |
| Aluminum | LD50, rat | > 2000 mg/kg, read-across |
| Graphite | LD50, rat | > 2000 mg/kg |
| Methanol | LD50, rat | 5628 mg/kg |
| Methanol | Human lethal dose | 143 mg/kg |
| Naphtha (petroleum), hydrotreated heavy | LD50, rat | > 6000 mg/kg |
| Solvent naphtha (petroleum), light aromatic | LD50, rabbit | 8400 mg/kg |

Dermal:

| Substance | Test | Result |
|--|--------------|-------------------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | LD50, rat | > 2000 mg/kg, estimated |
| Naphtha (petroleum), hydrotreated heavy | LD50, rabbit | > 3160 mg/kg |
| Solvent naphtha (petroleum), light aromatic | LD50, rabbit | > 2000 mg/kg |

Inhalation:

High vapor concentrations and direct contact may cause eye and respiratory tract irritation.

| Substance | Test | Result |
|--|-----------------------|---------------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | LC50, rat, 4 hours | > 5 mg/l, estimated |
| Nickel | NOAEC, rat, 1 h | > 10.2 mg/l (dust) |
| Aluminum | LC50, rat, 4 hours | > 0.888 mg/l (dust) |
| Graphite | LC50, rat, 4 hours | > 2 mg/l (dust) |
| Methanol | LC50, mouse, 134 min. | 79.43 mg/l |
| Naphtha (petroleum), hydrotreated heavy | LC50, rat, 4 hours | > 8.5 mg/l |
| Solvent naphtha (petroleum), light aromatic | LC50, rat | > 6.193 mg/l |

Skin corrosion/irritation:

Prolonged or repeated skin contact may cause mild irritation.

| Substance | Test | Result |
|--|-------------------------|----------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | Skin irritation, rabbit | Not irritating |
| Aluminum | Skin irritation, rabbit | Not irritating |
| Graphite | Skin irritation, rabbit | Not irritating |

Serious eye damage/irritation:

| Substance | Test | Result |
|--|------------------------|----------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | Eye irritation, rabbit | Not irritating |

Respiratory or skin sensitisation:

May cause skin sensitization as evidenced by rashes or hives.

| Substance | Test | Result |
|--|---|-----------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | Skin sensitization, guinea pig | Not sensitizing |
| Aluminum | Skin sensitization, guinea pig, read-across | Not sensitizing |
| Graphite | Skin sensitization, (OECD 429), mouse | Not sensitizing |
| Methanol | Skin sensitization, guinea pig | Not sensitizing |

Germ cell mutagenicity:

Distillates (petroleum), hydrotreated heavy naphthenic, Nickel, Aluminum, Graphite, Methanol: based on available data, the classification criteria are not met.

Carcinogenicity:

The National Toxicology Program (NTP) has listed Nickel powder as a potential carcinogen based on inhalation studies. The International Agency for Research on Cancer (IARC) has designated Nickel as possibly carcinogenic to humans (group 2B). The Nickel in this product is not in powder form and should not present a hazard in normal use. The U.S. National Institute for Occupational Safety and Health (NIOSH) concluded that there is no evidence that nickel metal is carcinogenic when ingested. To date, there is no evidence that nickel metal causes cancer in humans based on epidemiology data from workers in the nickel producing and nickel consuming industries. A recent animal (rat) inhalation study showed no increased respiratory cancer risk for nickel metal powder indicating that no carcinogen classification is warranted for nickel metal.

Reproductive toxicity:

Distillates (petroleum), hydrotreated heavy naphthenic, Nickel, Aluminum, Graphite, Methanol: based on available data, the classification criteria are not met.

STOT – single exposure:

Distillates (petroleum), hydrotreated heavy naphthenic, Nickel, Aluminum, Graphite: based on available data, the classification criteria are not met. Methanol: Causes damage to organs.

| | |
|----------------------------------|---|
| STOT – repeated exposure: | Nickel: Causes damage to lungs through prolonged or repeated inhalation exposure. Aluminum, Graphite, Methanol: based on available data, the classification criteria are not met. |
| Aspiration hazard: | Based on available data, the classification criteria are not met (viscosity). |
| Other information: | None |

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. The information given below is based on a knowledge of the components and the ecotoxicology of similar substances.

12.1. Toxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment (based on component data).

12.2. Persistence and degradability

Naphtha (petroleum), hydrotreated heavy, Solvent naphtha (petroleum), light aromatic: degradation is expected in the atmospheric environment within days to weeks; inherently biodegradable. Nickel, Aluminum, Graphite: inorganic substances. Methanol: readily biodegradable.

12.3. Bioaccumulative potential

Distillates (petroleum), hydrotreated heavy naphthenic, Nickel, Aluminum, Graphite, Methanol: not expected to bioaccumulate. Naphtha (petroleum), hydrotreated heavy, Solvent naphtha (petroleum), light aromatic: contains constituents with the potential to bioaccumulate.

12.4. Mobility in soil

Paste. Solubility in water: negligible. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9).

12.5. Endocrine disrupting properties

None known

12.6. Other adverse effects

None known

SECTION 13: DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Appropriate treatment standards for nickel must be met prior to disposal. Check local, state and national/federal regulations and comply with the most stringent requirement.

SECTION 14: TRANSPORT INFORMATION**14.1. UN number or ID number**

ADG/ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE

TDG: NOT APPLICABLE

US DOT: NOT APPLICABLE

14.2. UN proper shipping name

ADG/ADR/RID/ADN/IMDG/ICAO: NON-HAZARDOUS, NON REGULATED

TDG: NON-HAZARDOUS, NON REGULATED

US DOT: NON-HAZARDOUS, NON REGULATED

14.3. Transport hazard class(es)

ADG/ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE

TDG: NOT APPLICABLE

US DOT: NOT APPLICABLE

14.4. Packing group

ADG/ADR/RID/ADN/IMDG/ICAO: NOT APPLICABLE

TDG: NOT APPLICABLE

US DOT: NOT APPLICABLE

14.5. Environmental hazards

NOT APPLICABLE

14.6. Special precautions for user

NOT APPLICABLE

14.7. Maritime transport in bulk according to IMO instruments

NOT APPLICABLE

14.8. Other information

NOT APPLICABLE

SECTION 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. National regulations****US EPA SARA TITLE III****312 Hazards:****Chemicals subject to reporting requirements of Section 313 of EPCRA and of 40 CFR 372:**

| | | | |
|--|----------|-----------|--------|
| Skin sensitization | Nickel | 7440-02-0 | 25-30% |
| Carcinogenicity | Aluminum | 7429-90-5 | 5-10% |
| Specific target organ toxicity – repeated exposure | | | |

TSCA: All chemical components are listed in the TSCA inventory.

Other national regulations: None**SECTION 16: OTHER INFORMATION****Abbreviations and acronyms:**

ADG: Australian Dangerous Goods Code
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 ATE: Acute Toxicity Estimate
 BCF: Bioconcentration Factor
 cATpE: Converted Acute Toxicity point Estimate
 ES: Exposure Standard
 GHS: Globally Harmonized System
 ICAO: International Civil Aviation Organization
 IMDG: International Maritime Dangerous Goods
 LC50: Lethal Concentration to 50 % of a test population
 LD50: Lethal Dose to 50% of a test population
 LOEL: Lowest Observed Effect Level
 N/A: Not Applicable
 NA: Not Available
 NOEC: No Observed Effect Concentration
 NOEL: No Observed Effect Level
 OECD: Organization for Economic Co-operation and Development
 (Q)SAR: Quantitative Structure-Activity Relationship
 REL: Recommended Exposure Limit
 RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
 SDS: Safety Data Sheet
 STEL: Short Term Exposure Limit
 STOT RE: Specific Target Organ Toxicity, Repeated Exposure
 STOT SE: Specific Target Organ Toxicity, Single Exposure
 TDG: Transportation of Dangerous Goods (Canada)
 TWA: Time Weighted Average
 US DOT: United States Department of Transportation
 WHMIS: Workplace Hazardous Materials Information System
 Other abbreviations and acronyms can be looked up at www.wikipedia.org.

Key literature references and sources for data:

Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST)
 Chemical Classification and Information Database (CCID)
 European Chemicals Agency (ECHA) - Information on Chemicals
 Hazardous Chemical Information System (HCIS)
 National Institute of Technology and Evaluation (NITE)
 U.S. National Library of Medicine Toxicology Data Network (TOXNET)

Procedure used to derive the classification for mixtures according to GHS:

| Classification | Classification procedure |
|-------------------------|--------------------------|
| Skin Sens. 1, H317 | Calculation method |
| Carc. 2, H351 | Calculation method |
| STOT RE 1, H372 | Calculation method |
| Aquatic Chronic 3, H412 | Calculation method |

Relevant H-statements:

- H225: Highly flammable liquid and vapour.
- H226: Flammable liquid and vapour.
- H301: Toxic if swallowed.
- H304: May be fatal if swallowed and enters airways.
- H311: Toxic in contact with skin.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H319: Causes serious eye irritation.
- H331: Toxic if inhaled.
- H335: May cause respiratory irritation.
- H336: May cause drowsiness or dizziness.
- H351: Suspected of causing cancer by inhalation.
- H370: Causes damage to organs.
- H372: Causes damage to organs through prolonged or repeated exposure.
- H411: Toxic to aquatic life with long lasting effects.
- H412: Harmful to aquatic life with long lasting effects.

Hazard pictogram names: Health hazard; exclamation mark

Further information: None

Date of last revision: 13 January 2025

Changes to the SDS in this revision: Sections 1.2, 1.3, 2.1, 2.2, 3, 4.1, 5.2, 8.1, 8.2.3, 9.1, 10.5, 11, 12.2, 12.3, 12.5, 13, 15.1, 16.

This information is based solely on data provided by suppliers of the materials used, not on the mixture itself. No warranty is expressed or implied regarding the suitability of the product for the user's particular purpose. The user must make their own determination as to suitability.