

SAFETY DATA SHEET

in accordance with 1907/2006/EC (REACH, as amended by 830/2015/EU) and 29 CFR 1910.1200

Revision date: 29 December 2015 **Initial date of issue:** 19 April 2007 **SDS No.** 157B-28

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

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

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 Fax: +1 978-469-6785
(Mon. - Fri. 8:30 - 5:00 PM EST)
SDS requests: www.chesterton.com
E-mail (SDS questions): ProductMSDSs@chesterton.com
E-mail: customer.service@chesterton.com
EU: Chesterton International GmbH, Am Lenzenfleck 23,
D85737 Ismaning, Germany – Tel. +49-89-996-5460

Supplier:

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)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP] / 29 CFR 1910.1200 / WHMIS 2015 / GHS

STOT RE 1, H372A
Carc. 2, H351
Skin Sens. 1, H317
Aquatic Chronic 3, H412

2.1.2. Classification according to WHMIS 1988

D2A: Very toxic materials causing other effects; D2B: Toxic materials causing other effects

2.1.3. Australian statement of hazardous nature

Hazardous according to criteria of Safe Work Australia.

2.1.4. Additional information

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

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP] / 29 CFR 1910.1200 / WHMIS 2015 / GHS

Hazard pictograms:



Signal word:

Danger

Hazard statements:

H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer by inhalation.
H372A	Causes damage to lungs through prolonged or repeated inhalation exposure.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements: P201 Obtain special instructions before use.
 P260 Do not breathe dust/vapours.
 P262 Do not get in eyes, on skin, or on clothing.
 P280 Wear protective gloves/clothing and eye protection.
 P308/313 IF exposed or concerned: Get medical advice/attention.
 P362/364 Take off contaminated clothing and wash it before reuse.

Supplemental information: None

2.3. Other hazards

None known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Hazardous Ingredients ¹	% Wt.	CAS No./ EC No.	REACH Reg. No.	CLP/GHS Classification
Distillates (petroleum), hydrotreated heavy naphthenic**	35-45	64742-52-5 265-155-0	01-211946 7170-45	Asp. Tox. 1, H304
Nickel	25-30	7440-02-0 231-111-4	01-211943 8727-29	Carc. 2, H351A STOT RE 1, H372A Skin Sens. 1, H317 Aquatic Chronic 3, H412
Aluminum	5-10	7429-90-5 231-072-3	01-211952 9243-45	Water-react. 2, H261 Flam. Sol. 1, H228
Naphtha (petroleum), hydrotreated heavy*	1-3	64742-48-9 265-150-3	NA	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336
Methanol	0.1-0.4	67-56-1 200-659-6	01-211943 3307-44	Flam. Liq. 2, H225 Acute Tox. 3, H331, H311, H301 STOT SE 1, H370

Other ingredients:

Graphite	1-5	7782-42-5 231-955-3	01-211948 6977-12	Not classified***
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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.

¹ Classified according to: * 29 CFR 1910.1200, 1915, 1916, 1917, Mass. Right-to-Know Law (ch. 40, M.G.L..O. 111F), California Proposition 65
 * 1272/2008/EC, REACH
 * WHMIS 2015
 * Safe Work Australia [NOHSC: 1008 (2004)]

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. 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.

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: FIREFIGHTING 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

None

5.3. Advice for firefighters

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

Flammability Classification: –

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 should 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		UK WEL ³		AUSTRALIA ES ⁴	
	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Oil mist, mineral	–	5	(inhal)	5	–	–	–	5
Nickel*	–	1	(inhal)	1.5	–	0.5	–	1
Aluminum*	(total) (resp)	15 5	(resp)	1	(inhal) (resp)	10 4	–	10
Naphtha (petroleum), hydrotreated heavy	–	–	–	–	–	–	–	–
Methanol	200	260	200 STEL: 250	(skin)	200 STEL: 250	266 333	200 (skin) STEL: 250	262 328
Graphite*	(total) (resp)	15 5	(resp)	2	(total) (resp)	10 4	(resp)	3

*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 EH40 Workplace exposure limits, Health & Safety Executive

⁴ Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003].

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

Physical state	paste	Odour	petroleum odor
Colour	gray	Odour threshold	
Initial boiling point	not determined	Vapour pressure @ 20°C	not determined
Melting point	not determined	% Aromatics by weight	approx. 0.28%
% Volatile (by volume)	5%	pH	not applicable
Flash point	95°C (204°F)	Relative density	1.29 kg/l
Method	PM Closed Cup	Weight per volume	10.7 lbs/gal
Viscosity	1 million cps @25°C	Coefficient (water/oil)	< 1
Autoignition temperature	not determined	Vapour density (air=1)	> 1
Decomposition temperature	not determined	Rate of evaporation (ether=1)	< 1
Upper/lower flammability or explosive limits	not determined	Solubility in water	negligible
Flammability (solid, gas)	not applicable	Oxidising properties	not determined
Explosive properties	not applicable		

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

Acids and strong oxidizers like liquid Chlorine and concentrated Oxygen.

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	> 15000 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

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

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. WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

Reproductive toxicity:	Distillates (petroleum), hydrotreated heavy naphthenic, Nickel, Aluminum, Graphite, Methanol: based on available data, the classification criteria are not met. WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm (Methanol).
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, Distillates (petroleum), hydrotreated heavy naphthenic: inherently biodegradable (31% 3409 OECD 301F, 28 days). 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.

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. Results of PBT and vPvB assessment

Not available

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. This product is classified as a hazardous waste according to 2008/98/EC. Check local, state and national/federal regulations and comply with the most stringent requirement.

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

ADR/RID/ADN/IMDG/ICAO:	NOT APPLICABLE
TDG:	NOT APPLICABLE
US DOT:	NOT APPLICABLE

14.2. UN proper shipping name

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)

ADR/RID/ADN/IMDG/ICAO:	NOT APPLICABLE
TDG:	NOT APPLICABLE
US DOT:	NOT APPLICABLE

14.4. Packing group

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. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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. EU regulations****Authorisations under Title VII:** Not applicable**Restrictions under Title VIII:** None**Other EU regulations:** Directive 92/85/EEC on the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding. Directive 94/33/EC on the protection of young people at work.**15.1.2. National regulations****US EPA SARA TITLE III****312 Hazards:**Immediate
Delayed**313 Chemicals:**Nickel 7440-02-0 25-30%
Aluminum 7429-90-5 5-10%**Other national regulations:** National implementations of the EC Directives referred to in section 15.1.1.**15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms: 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
CLP: Classification Labelling Packaging Regulation (1272/2008/EC)
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
PBT: Persistent, Bioaccumulative and Toxic substance
(Q)SAR: Quantitative Structure-Activity Relationship
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (1907/2006/EC)
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)
US DOT: United States Department of Transportation
vPvB: very Persistent and very Bioaccumulative substance
WEL: Workplace Exposure Limit
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 de la santé et de la sécurité du travail (CSST)
Chemical Classification and Information Database (CCID)
European Chemicals Agency (ECHA) - Information on Chemicals
Hazardous Substances Information System (HSIS)
National Institute of Technology and Evaluation (NITE)
Swedish Chemicals Agency (KEMI)
U.S. National Library of Medicine Toxicology Data Network (TOXNET)

Procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008 [CLP] / 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.
- H228: Flammable solid.
- 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.
- H331: Toxic if inhaled.
- H336: May cause drowsiness or dizziness.
- H351A: Suspected of causing cancer by inhalation.
- H370: Causes damage to organs.
- H372A: Causes damage to lungs through prolonged or repeated inhalation exposure.
- H411: Toxic to aquatic life with long lasting effects.
- H412: Harmful to aquatic life with long lasting effects.
- H372D: Causes damage to the central nervous system through prolonged or repeated exposure.

Hazard pictogram names: Health hazard; exclamation mark

Changes to the SDS in this revision: Sections 2.1, 2.2, 8.1, 11, 12.2, 15.1.2.

Revision date: 29 December 2015

Further information: None

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.