SAFETY DATA SHEET

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

Revision date: 15 October 2015 **Initial date of issue:** 6 July 2007 **SDS No.** 104B-19

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

1.1. Product identifier

710 Anti-Seize Compound (Bulk)

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

High temperature, extreme pressure, corrosion resistant anti-seize compound and assembly lubricant. This is a petroleum base lubricant.

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

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]

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, 29 CFR 1910.1200, WHMIS 2015 and GHS.

2.1.2. Classification according to 29 CFR 1910.1200 / WHMIS 2015

Flam. Liq. 4, H227

2.1.3. Classification according to WHMIS 1988

B3: Combustible liquids; D2B: Toxic materials causing other effects; D2A: Very toxic materials causing other effects

2.1.4. Australian statement of hazardous nature

Hazardous according to criteria of Safe Work Australia.

2.1.5. Additional information

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

2.2. Label elements

2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms: None
Signal word: None
Hazard statements: None
Precautionary statements: None
Supplemental information: None

2.2.2. Labelling according to 29 CFR 1910.1200 / WHMIS 2015

Hazard pictograms: None
Signal word: Warning

Hazard statements:	H227	Combustible liquid.
Precautionary statements:	P210	Keep away from flames and hot surfaces. – No smoking.
	P280	Wear protective gloves and eye protection.
	P370/378	In case of fire: Use CO2, dry chemical, foam or water fog to extinguish.
	P403/235	Store in a well-ventilated place. Keep cool.
	P501	Dispose of contents/container to an approved waste disposal plant.
Supplemental information:	None	

2.3. Other hazards

Direct eye contact causes eye irritation. Do not use on oxygen systems. Do not use in the presence of acetylene. The copper in this product does not separate from the mixture or in of itself become air-borne, therefore it does not present a hazard in normal use.

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	NA	Asp. Tox. 1, H304
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*	1-4	64742-48-9 265-150-3	NA	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336
Methanol	0.1-0.5	67-56-1 200-659-6	NA	Flam. Liq. 2, H225 Acute Tox. 3, H331 Acute Tox. 3, H311 Acute Tox. 3, H301 Eye Irrit. 2A, H319 STOT SE 1, H370
Other ingredients:				
Copper	20-30	7440-50-8 231-159-6	NA	Not classified***
Graphite	1-5	7782-42-5 231-955-3	01-211948 6977-12	Not classified***
Silicon Dioxide	1-2	112945-52-5 7631-86-9/ 231-545-4	NA	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.

[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: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion: Do not induce vomiting. Contact physician immediately.

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

Direct eye contact causes eye irritation. High vapor concentrations cause eye and respiratory tract irritation and dizziness, headache and other central nervous system effects. Prolonged or repeated skin contact may defat the skin and cause skin irritation.

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: Water jets

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

Avoid prolonged or repeated skin contact. Utilize exposure controls and personal protection as specified in Section 8.

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	–	5 (inhal)	–	–	–	5
Aluminum	(total) (resp)	15 5	–	1 (resp)	–	10 (inhal) 4 (resp)	–	10
Naphtha (petroleum), hydrotreated heavy	–	–	–	–	–	–	–	–
Methanol	200	260	200 STEL: 250	262 328	200 STEL: 250	266 333	200 STEL: 250	262 328
Copper	(as Cu)	1 0.2 (fume)	(as Cu)	1 0.2 (fume)	(as Cu)	1 2 (STEL) 0.2 (fume)	(as Cu)	1 0.2 (fume)
Graphite	–	5 (resp)	–	2 (resp)	–	10 (inhal) 4 (resp)	–	3
Silicon Dioxide	–	80/ %SiO_2	–	10 (inhal) 3 (resp)	–	6 (inhal) 2.4 (resp)	–	2 (resp)

[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. neoprene, nitrile).

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	**Odour**	mild odor
Colour	gray	**Odour threshold**	not determined
Initial boiling point	not determined	**Vapour pressure @ 20°C**	not determined
Melting point	not determined	**% Aromatics by weight**	22.3
% Volatile (by volume)	5.6%	**pH**	not applicable
Flash point	85°C (185°F)	**Relative density**	1.3 kg/l
Method	PM Closed Cup	**Weight per volume**	10.8 lbs/gal.
Viscosity	800-2000K cps @25ºC	**Coefficient (water/oil)**	< 1
Autoignition temperature	Unknown	**Vapour density (air=1)**	> 1
Decomposition temperature	no data available	**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 applicable
Explosive properties	not applicable		

9.2. Other information

None

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Refer to sections 10.3 and 10.5.

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, bases 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. Personnel with pre-existing skin and lung disorders are generally aggravated by exposure.

Acute toxicity -

Oral:

Substance	Test	2969
Distillates (petroleum), hydrotreated heavy naphthenic	LD50, rat	> 3000 mg/kg, estimated
Naphtha (petroleum), hydrotreated heavy	LD50, rat	> 15000 mg/kg
Methanol	Human lethal dose	143 mg/kg (RTECS)

Dermal:

Substance	Test	Result
Distillates (petroleum), hydrotreated heavy naphthenic	LD50, rat	> 3000 mg/kg, estimated
Methanol	LDLo, monkey	393 mg/kg (IUCLID)
Naphtha (petroleum), hydrotreated heavy	LD50, rabbit	> 3160 mg/kg

Inhalation: High vapor concentrations cause eye and respiratory tract irritation and dizziness, headache and other central nervous system effects.

Substance	Test	Result
Distillates (petroleum), hydrotreated heavy naphthenic	rat, 4 hours	> 5 mg/l, estimated
Methanol	LCLo, monkey	1.3 mg/l (IUCLID)

Skin corrosion/irritation: Distillates (petroleum), hydrotreated heavy naphthenic: Prolonged or repeated skin contact may defat the skin and cause dermatitis.

Serious eye damage/ irritation: Distillates (petroleum), hydrotreated heavy naphthenic: May be irritating to eyes.

Respiratory or skin sensitisation: Distillates (petroleum), hydrotreated heavy naphthenic: Skin sensitization is indicated as non-sensitizing based on data from similar products. Methanol: based on available data, the classification criteria are not met.

Germ cell mutagenicity: Distillates (petroleum), hydrotreated heavy naphthenic: this substance is considered non-mutagenic and has a negative potential for tumor development based on results from the Modified Ames Assay, with a Mutagenic Index of less than 1.0. Methanol: based on available data, the classification criteria are not met.

Carcinogenicity: As per 29 CFR 1910.1200 (Hazard Communication), this product contains no carcinogens as listed by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), the Occupational Safety and Health Administration (OSHA) or Regulation (EC) No 1272/2008.

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

STOT-single exposure: Methanol: Causes damage to organs. Distillates (petroleum), hydrotreated heavy naphthenic: based on available data, the classification criteria are not met.

STOT-repeated exposure: Distillates (petroleum), hydrotreated heavy naphthenic, Methanol: based on available data, the classification criteria are not met.

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

Other information: None known

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

Distillates (petroleum), hydrotreated heavy naphthenic: available data indicate this product is not acutely toxic. Methanol: 96 h LC50 (fish) = 15400 – 29400 mg/l.

12.2. Persistence and degradability

Mineral oil, biodegradation: 31% (OECD 301F, 28 days). Copper, Aluminum, Graphite: inorganic substances. Methanol: expected to degrade rapidly in air.

12.3. Bioaccumulative potential

Distillates (petroleum), hydrotreated heavy naphthenic, Methanol: not expected to bioaccumulate.

12.4. Mobility in soil

Paste. Solubility in water: negligible. Oil products, improperly released to the environment, can cause ground and water pollution. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9). Distillates (petroleum), hydrotreated heavy naphthenic: large volumes may penetrate soil and contaminate groundwater. Methanol: expected to have very high mobility in soils.

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

Incinerate absorbed material with a properly licensed facility. Material can be stabilized/solidified or incinerated for disposal. Check local, state and national/federal regulations and comply with the most stringent requirement. This product is classified as a hazardous waste according to 2008/98/EC.

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: None

15.1.2. National regulations

US EPA SARA TITLE III

312 Hazards:

Immediate
Delayed

313 Chemicals:

Copper	7440-50-8	20-30%
Aluminum	7429-90-5	5-10%
Methanol	67-56-1	Below De Minimis concentration

Other national regulations: None

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
NOAEL: No Observed Adverse Effect Level
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:

Classification	Classification procedure
Flam. Liq. 4, H227	On basis of test data

Relevant H-statements:

H225: Highly flammable liquid and vapour.
H226: Flammable liquid and vapour.
H228: Flammable solid.
H261: In contact with water releases flammable gases.
H301: Toxic if swallowed.
H304: May be fatal if swallowed and enters airways.
H311: Toxic in contact with skin.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H331: Toxic if inhaled.
H336: May cause drowsiness or dizziness.
H370: Causes damage to organs.
H372D: Causes damage to the central nervous system through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Hazard pictogram names: None

Changes to the SDS in this revision: Sections 2.1, 2.2, 3, 5.1, 8, 11, 12.1, 12.2, 12.3, 12.4, 16.

Revision date: 15 October 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.