

SAFETY DATA SHEET

in accordance with 1907/2006/EC (REACH, as amended by 453/2010/EC) and 29 CFR 1910.1200

Revision date: 25 August 2015

Initial date of issue: 5 July 2007

SDS No. 108A-19

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

1.1. Product identifier

601 Chain Drive Pin & Bushing Lubricant (Aerosol)

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

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]

Aerosol 2, H223, H229
Asp. Tox. 1, H304
Aquatic Chronic 3, H412

2.1.2. Classification according to 29 CFR 1910.1200 / WHMIS 2015

Same as section 2.2.1.

2.1.3. Classification according to WHMIS 1988

A: Compressed gases

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. None

2.2. Label elements

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

Hazard pictograms:



Signal word:

Warning

Hazard statements:

H223 Flammable aerosol.
H229 Pressurized container: May burst if heated.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Do not pierce or burn, even after use.
 P273 Avoid release to the environment.
 P410/412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

Supplemental information: None

2.2.2. Labelling according to 29 CFR 1910.1200 / WHMIS 2015

Hazard pictograms:



Signal word: Danger

Hazard statements: H223 Flammable aerosol.
 H229 Pressurized container: May burst if heated.
 H304 May be fatal if swallowed and enters airways.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Do not pierce or burn, even after use.
 P301/310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P331 Do NOT induce vomiting.
 P410/412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

Supplemental information: None

2.3. Other hazards

None

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* | 70-80 | 64742-52-5 265-155-00 | NA | Asp. Tox. 1, H304 |
| Carbon Dioxide | 1-5 | 124-38-9 204-696-9 | NA | Press. Gas, H280 |
| N-Methyl-2-pyrrolidone | 0.1-0.99 | 872-50-4 212-828-1 | NA | Repr. 1B, H360D (≥ 5%) Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335 (≥ 10%) [Eye Irrit. 2B, H320]** STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 (M-factor = 1, self-classification) |
| 2,6-di-tert-butyl-p-cresol | 0.1-0.9 | 128-37-0 204-881-4 | NA | |
| Other ingredients: Acetic acid, C11-14-isoalkyl esters, C13-rich | 5-10 | 108419-35-8 283-740-9 | NA | Not classified |

*Contains less than 3 % DMSO extract as measured by IP 346. **Non-CLP classification.

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

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

Aspiration into the lungs may cause chemical pneumonitis or pulmonary oedema. Direct eye contact causes eye irritation. High vapor concentration can cause eye and respiratory irritation, headache and dizziness. 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 or foam

Unsuitable extinguishing media: High volume water jet

5.2. Special hazards arising from the substance or mixture

Pressurized containers, when heated, are a potential explosive hazard.

5.3. Advice for firefighters

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

Flammability Classification: –

HAZCHEM Emergency Action Code: 3 **Y**

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

Provide adequate ventilation. 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

Contain spill to a small area. Pick up with absorbent material (sand, sawdust, clay, etc.) and place in 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**

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

7.2. Conditions for safe storage, including any incompatibilities

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C (120°F). Do not pierce or burn, even after use.

7.3. Specific end use(s)

Petroleum base lubricant. Refer to the product instructions and product data sheet for more detailed application information.

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 | – | – | – | 5 |
| Carbon Dioxide | 5000 | 9000 | 5000 | 9000 | 5000 | 9150 | 5000 | 9000 |
| | | | STEL: | | STEL: | | STEL: | |
| | | | 30000 | 54000 | 15000 | 27400 | 30000 | 54000 |
| N-Methyl-2-pyrrolidone | – | – | – | – | 25 | 103 | 25 | 103 |
| | | | | | STEL: | | STEL: | |
| | | | | | 75 | 309 | 75 | 309 |
| 2,6-di-tert-butyl-p-cresol | – | – | – | 2** | – | 10 | – | 10 |
| Acetic acid, C11-14-isoalkyl esters, C13-rich** | – | – | – | – | – | – | – | – |

*Chesterton recommended limit, 8 hr TWA: 50 ppm, 10 mg/m³. **Inhalable fraction and vapor

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.

Protective gloves: If needed, use chemical resistant gloves (e.g. Viton*, neoprene, nitrile). *DuPont's registered trademark.

Eye and face protection: Safety goggles or 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 | low viscosity liquid | Odour | petroleum odor |
| Colour | amber | Odour threshold | not determined |
| Initial boiling point | 220°C (428°F) | Vapour pressure @ 20°C | not determined |
| Melting point | not determined | % Aromatics by weight | < 1% |
| % Volatile (by volume) | 15%, product only | pH | not applicable |
| Flash point | 132°C (270°F) | Relative density | 0.9 kg/l, product only |
| Method | PM Closed Cup, product only | Weight per volume | 7.5 lbs/gal., product only |
| Viscosity | 28 cps @ 25°C | Coefficient (water/oil) | < 1 |
| Autoignition temperature | not determined | 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 | slightly soluble |
| Flammability (solid, gas) | not applicable | Oxidising properties | not determined |
| Explosive properties | no data available | | |

9.2. Other information

None

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

No data available Refer to sections 10.3 and 10.5.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under conditions of normal use.

10.4. Conditions to avoid

Open flames and red hot surfaces.

10.5. Incompatible materials

Caustics, 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 |
| Acetic acid, C11-14-isoalkyl esters, C13-rich | LD50, rat | > 5000 mg/kg |
| N-Methyl-2-pyrrolidone | LD50, rat | 3598 mg/kg |
| 2,6-di-tert-butyl-p-cresol | LD50, rat | > 6000 mg/kg |

Dermal:

| Substance | Test | Result |
|--|--------------|-------------------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | LD50, rat | > 2000 mg/kg, estimated |
| Acetic acid, C11-14-isoalkyl esters, C13-rich | LD50, rabbit | > 3160 mg/kg |
| N-Methyl-2-pyrrolidone | LD50, rabbit | 8000 mg/kg |
| 2,6-di-tert-butyl-p-cresol | LD50, rat | > 2000 mg/kg |

Inhalation:

High vapor concentration can cause eye and respiratory irritation, headache and dizziness.

| Substance | Test | Result |
|--|--------------------|---------------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | LC50, rat, 4 hours | > 5 mg/l, estimated |
| N-Methyl-2-pyrrolidone | LC50, rat, 4 hours | > 5.1 mg/l |

Skin corrosion/irritation:

Prolonged or repeated skin contact may defat the skin and cause skin irritation.

| Substance | Test | Result |
|--|---|------------------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | Skin irritation, rabbit | < 0.5 / 8.0, estimated |
| Acetic acid, C11-14-isoalkyl esters, C13-rich | Skin irritation, rabbit | Slightly irritating |
| N-Methyl-2-pyrrolidone | Skin irritation, rabbit, human experience | Irritating |

Serious eye damage/irritation:

Direct eye contact causes eye irritation.

| Substance | Test | Result |
|--|------------------------|-----------------------|
| Distillates (petroleum), hydrotreated heavy naphthenic | Eye irritation, rabbit | < 15 / 110, estimated |
| Acetic acid, C11-14-isoalkyl esters, C13-rich | Eye irritation, rabbit | Slightly irritating |
| N-Methyl-2-pyrrolidone | Eye irritation, rabbit | Moderate irritation |

Respiratory or skin sensitisation:

Distillates (petroleum), hydrotreated heavy naphthenic: Skin sensitization is indicated as non-sensitizing based on data from similar products. N-Methyl-2-pyrrolidone: based on available data, the classification criteria are not met. Acetic acid, C11-14-isoalkyl esters, C13-rich: did not produce any evidence of skin irritation or skin sensitization response in a repeated insult patch test in human volunteers.

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. N-Methyl-2-pyrrolidone, 2,6-di-tert-butyl-p-cresol: based on available data, the classification criteria are not met. Acetic acid, C11-14-isoalkyl esters, C13-rich: expected to be non-mutagenic based on data from similar materials.

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:

Distillates (petroleum), hydrotreated heavy naphthenic: based on available data, the classification criteria are not met. N-Methyl-2-Pyrrolidone has produced reproductive/teratogenic effects in animal studies. 2,6-di-tert-butyl-p-cresol: not expected to be a reproductive toxicant. Acetic acid, C11-14-isoalkyl esters, C13-rich, maternal NOAEL, rat: 500 mg/kg/day; developmental NOAEL, rat: 2500 mg/kg/day.

STOT-single exposure:

Distillates (petroleum), hydrotreated heavy naphthenic: based on available data, the classification criteria are not met. Acetic acid, C11-14-isoalkyl esters, C13-rich: High vapor concentration can cause eye and respiratory irritation, headache and dizziness. N-Methyl-2-pyrrolidone, 2,6-di-tert-butyl-p-cresol: May cause respiratory irritation.

STOT-repeated exposure:

Distillates (petroleum), hydrotreated heavy naphthenic, N-Methyl-2-pyrrolidone: based on available data, the classification criteria are not met. Acetic acid, C11-14-isoalkyl esters, C13-rich, NOAEL, 90-day oral subchronic study, rat: 500 mg/kg/day.

Aspiration hazard:

May be fatal if swallowed and enters airways.

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 [2,6-di-tert-butyl-p-cresol: 48 h EC50 (for daphnia) = 0.48 mg/l]. Distillates (petroleum), hydrotreated heavy naphthenic, N-Methyl-2-pyrrolidone: available data indicate this product is not acutely toxic.

12.2. Persistence and degradability

Distillates (petroleum), hydrotreated heavy naphthenic: 31% biodegradation (OECD 301F, 28 days). Acetic acid, C11-14-isoalkyl esters, C13-rich: expected to biodegrade slowly in soil and water. N-Methyl-2-pyrrolidone, biodegradation: 73% (OECD 301C, 28 days), readily biodegradable. 2,6-di-tert-butyl-p-cresol: not readily biodegradable.

12.3. Bioaccumulative potential

Distillates (petroleum), hydrotreated heavy naphthenic, N-Methyl-2-pyrrolidone: not expected to bioaccumulate. Acetic acid, C11-14-isoalkyl esters, C13-rich: expected to bioaccumulate. 2,6-di-tert-butyl-p-cresol: may bioaccumulate (BCF = 230–2500, fish, 56 days; log Kow = 5.1).

12.4. Mobility in soil

Low viscosity liquid. Slightly soluble in water. 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. N-Methyl-2-pyrrolidone: expected to have very high mobility in soils. Acetic acid, C11-14-isoalkyl esters, C13-rich: expected to have high affinity for adsorption to soil and sediments.

12.5. Results of PBT and vPvB assessment

Not available

12.6. Other adverse effects

None

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

Incinerate absorbed material with a properly licensed facility. Incinerate pressurized containers at an approved facility. 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.

European List of Wastes code: 15 01 10

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

ADR/RID/ADN/IMDG/ICAO: UN1950

TDG: UN1950

US DOT: UN1950

14.2. UN proper shipping name

ICAO: Aerosols, Flammable

IMDG: Aerosols

ADR/RID/ADN: Aerosols, *flammable*

TDG: Aerosols, *flammable*

US DOT: Aerosols, *flammable*

14.3. Transport hazard class(es)

ADR/RID/ADN/IMDG/ICAO: 2.1

TDG: 2.1

US DOT: 2.1

14.4. Packing group

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

TDG: NOT APPLICABLE

US DOT: NOT APPLICABLE

14.5. Environmental hazards

NO ENVIRONMENTAL HAZARDS

14.6. Special precautions for user

NO SPECIAL PRECAUTIONS FOR USER

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

NOT APPLICABLE

14.8. Other information

US DOT: Shipped as Consumer Commodity ORM-D in packaging having a rated capacity gross weight of 66 lb. or less (49 CFR 173.306(i)). ERG NO. 126

IMDG: EmS. F-D, S-U, Shipped as Limited Quantity

ADR: Classification code 5F, Tunnel restriction code (E), Shipped as Limited Quantity

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: None

Restrictions under Title VIII: None

Other EU regulations: Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers

15.1.2. National regulations

US EPA SARA TITLE III

312 Hazards:

Fire
Immediate
Pressure Release

313 Chemicals:

None

Other national regulations: National implementation of the EC Directive 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
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 |
|-------------------------|---|
| Aerosol 2, H223, H229 | On basis of components; Aerosol dispenser |
| Asp. Tox. 1, H304 | On basis of test data |
| Aquatic Chronic 3, H412 | Calculation method |

Relevant H-statements: H280: Contains gas under pressure; may explode if heated.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H320: Causes eye irritation.
H335: May cause respiratory irritation.
H360D: May damage the unborn child.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

Hazard pictogram names: Flame, health hazard

Changes to the SDS in this revision: Sections 2.1, 2.2, 3, 15.1.2, 16.

Revision date: 25 August 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.