



SAFETY DATA SHEET

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

Revision date: 4 January 2019

Initial date of issue: 5 July 2007

SDS No. 179A-23

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

1.1. Product identifier

610 Synthetic Lubricating Fluid (Aerosol)

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

Synthetic Base Lubricant. For the lubrication of equipment operating at temperatures to 270°C (518°F).

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:

Canada: A.W. Chesterton Company Ltd., 889 Fraser Drive,
Unit 105, Burlington, Ontario L7L 4X8 – Tel. 905-335-5055
EU: Chesterton International GmbH, Am Lenzenfleck 23,
D85737 Ismaning, Germany – Tel. +49-89-996-5460

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 Regulation (EC) No 1272/2008 [CLP] / GHS

Aerosol, Category 2, H223, H229
Hazardous to the aquatic environment, Chronic, Category 3, H412

2.1.2. Classification according to 29 CFR 1910.1200 / WHMIS 2015 / GHS

Flammable aerosol, Category 2, H223
Compressed gas, H280
Reproductive toxicity, Category 2, H361
Hazardous to the aquatic environment, Chronic, Category 3, H412

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**2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP] / GHS****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.
 P501 Dispose of contents/container to an approved waste disposal plant.

Supplemental information: None**2.2.2. Labelling according to 29 CFR 1910.1200 / WHMIS 2015 / GHS****Hazard pictograms:****Signal word:**

Warning

Hazard statements:

H223 Flammable aerosol.
 H280 Contains gas under pressure; may explode if heated.
 H361 Suspected of damaging fertility or the unborn child.
 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.
 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.
 P280 Wear protective gloves.
 P308/313 IF exposed or concerned: Get medical advice/attention.
 P410/412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
 P501 Dispose of contents/container to an approved waste disposal plant.

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
Decanoic acid, mixed esters with heptanoic acid, isononanoic acid, octanoic acid and pentaerythritol	45-70	118685-24-8 451-180-6	NA	Aquatic Chronic 4, H413
Distillates (petroleum), hydrotreated light	5-10	64742-47-8 265-149-8	NA	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 3, H412
Carbon dioxide	1-3	124-38-9 204-696-9	NA	Press. Gas (Comp.), H280

tris(methylphenyl) phosphate (Synonym: Tricresyl phosphate)*	1-<2.5	1330-78-5 215-548-8	NA	Repr. 2; H361 Aquatic Acute 1; H400 (M-factor: 1) Aquatic Chronic 1; H410
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	0.8-2.2	68411-46-1 270-128-1	NA	Aquatic Chronic 3, H412

For full text of H-statements: see SECTION 16. *Contains less than 0.15% w/w ortho isomer.

¹ Classified according to:

- 29 CFR 1910.1200, 1915, 1916, 1917, Mass. Right-to-Know Law (ch. 40, M.G.L..O. 111F)
- 1272/2008/EC, GHS, REACH
- WHMIS 2015
- Safe Work Australia

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 immediately.

Skin contact: Wash skin with soap and water. Remove contaminated clothing. 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 for at least 10 minutes. Contact physician if irritation persists.

Ingestion: Do not induce vomiting. If person is conscious, rinse mouth with water. 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 for recommendations on personal protective equipment.

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

May cause mild irritation to skin, eyes and respiratory tract. Inhalation of vapor concentrations in excess of exposure limits may result in 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: FIREFIGHTING MEASURES

5.1. Extinguishing media

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

Unsuitable extinguishing media: High volume water jet

5.2. Special hazards arising from the substance or mixture

Water may cause frothing.

5.3. Advice for firefighters

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

Flammability Classification: Not determined

HAZCHEM Emergency Action Code: 2 Z

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. 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. Flush away from ignition sources with water. 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. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No Smoking. May attack some rubber materials and paints. As with any product involved with moving equipment, care is recommended. If in doubt, stop equipment prior to application.

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)

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
Decanoic acid, mixed esters with heptanoic acid, isononanoic acid, octanoic acid and pentaerythritol	–	–	–	–	–	–	–	–
Distillates (petroleum), hydrotreated light	500	–	212	1200	–	–	–	–
Carbon dioxide	5,000	9,000	5,000	9,000	5,000	9,150	5,000	9,000
			STEL: 30,000	54,000	STEL: 15,000	27,400	STEL: 30,000	54,000
tris(methylphenyl) phosphate	–	–	–	–	–	–	–	–
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	–	–	–	–	–	–	–	–

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]

Biological limit values

Not available

Derived No Effect Level (DNEL) according to Regulation (EC) No 1907/2006:**Workers**

Substance	Route of exposure	Potential health effects	DNEL
tris(methylphenyl) phosphate	Inhalation	Acute effects, systemic	1.11 mg/m ³
		Chronic effects, systemic	0.47 mg/m ³
	Dermal	Acute effects, local	16 mg/cm ³
		Acute effects, systemic	74 mg/kg
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Inhalation	Chronic effects, systemic	3.33 mg/kg
		Chronic effects, systemic	4.37 mg/m ³
	Dermal	Chronic effects, systemic	0.62 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No 1907/2006:

Substance	Environmental protection target	PNEC
tris(methylphenyl) phosphate	Fresh water	0.000146 mg/l
	Freshwater sediments	0.404 mg/kg
	Marine water	< 0.000015 mg/l
	Marine sediments	0.00404 mg/kg
	Food chain	0.67 mg/kg
	Microorganisms in sewage treatment	100 mg/l
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Soil (agricultural)	0.052 mg/kg
	Fresh water	0.051 mg/l
	Freshwater sediments	9320 mg/kg
	Marine water	0.0051 mg/l
	Marine sediments	932 mg/kg
	Microorganisms in sewage treatment	1 mg/l
	Soil (agricultural)	1860 mg/kg

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 (EN filter type A/P).

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

Eye and face protection: Safety goggles.

Other: Long sleeves, long pants and good personal hygiene to minimize skin contact.

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	liquid	Odour	mild
Colour	amber	Odour threshold	not determined
Initial boiling point	not determined	Vapour pressure @ 20°C	not determined
Melting point	not determined	% Aromatics by weight	< 0.1%
% Volatile (by volume)	12%	pH	not applicable
Flash point	68°C (154°F), product only	Relative density	0.96 kg/l
Method	PM Closed Cup	Weight per volume	8.0 lbs/gal.
Viscosity	not determined	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	slightly soluble
Flammability (solid, gas)	not determined	Oxidising properties	not determined
Explosive properties	not determined		

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 oxidizers like liquid Chlorine and concentrated oxygen, caustic and acid solutions.

10.6. Hazardous decomposition products

Carbon Monoxide, Carbon Dioxide, Oxides of Phosphorus 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:** Not expected to cause toxicity. ATE-mix > 5000 mg/kg.

Substance	Test	Result
Distillates (petroleum), hydrotreated light	LD50, rat	> 5,000 mg/kg
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	LD50, rat (OECD 401)	> 5,000 mg/kg
tris(methylphenyl) phosphate	LD50, rat	> 5,000 mg/kg

Dermal: Not expected to cause toxicity. ATE-mix > 4453 mg/kg.

Substance	Test	Result
Distillates (petroleum), hydrotreated light	LD50, rabbit	> 2,000 mg/kg
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	LD50, rat	> 2,000 mg/kg
tris(methylphenyl) phosphate	LD50, rabbit	> 10,000 mg/kg

Inhalation:

Not classified due to lack of data. Inhalation of vapor concentrations in excess of exposure limits may result in dizziness, headache and other central nervous system effects.

Substance	Test	Result
Distillates (petroleum), hydrotreated light	LC50, rat, 4 hours	> 5.28 mg/l (analytical)
tris(methylphenyl) phosphate	LC50, rat, 1 h	> 11.1 mg/l

Skin corrosion/irritation:

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

Substance	Test	Result
Distillates (petroleum), hydrotreated light	Skin irritation, rabbit	Not irritating / Slightly irritating / Moderate irritation
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Skin irritation, rabbit (OECD 404)	Not irritating
tris(methylphenyl) phosphate	Skin irritation, rabbit, 24 h	Not irritating

Serious eye damage/irritation:

Not classified due to lack of data.

Substance	Test	Result
Distillates (petroleum), hydrotreated light	Eye irritation, rabbit	Not irritating / Slightly irritating
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Eye irritation, rabbit (OECD 405)	Not irritating
tris(methylphenyl) phosphate	Eye irritation, rabbit	Not irritating

Respiratory or skin sensitisation:

Not classified due to lack of data.

Substance	Test	Result
Distillates (petroleum), hydrotreated light	Skin sensitization, guinea pig	Not sensitizing
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Skin sensitization, guinea pig (OECD 406)	Not sensitizing
tris(methylphenyl) phosphate	Skin sensitization	Not sensitizing

Germ cell mutagenicity:

Decanoic acid, mixed esters with heptanoic acid, isononanoic acid, octanoic acid and pentaerythritol, Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene, Ames test: negative. tris(methylphenyl) phosphate: not expected to be a germ cell mutagen (In vitro test). Distillates (petroleum), hydrotreated light: not expected to be a germ cell mutagen.

Carcinogenicity:

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 the European Chemicals Agency (ECHA).

Reproductive toxicity:

Tricresyl phosphate has caused impaired fertility in animal ingestion studies.

STOT – single exposure:

Not classified due to lack of data. Distillates (petroleum), hydrotreated light: May cause drowsiness or dizziness. Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene, tris(methylphenyl) phosphate: based on available data, the classification criteria are not met.

STOT – repeated exposure:

Not classified due to lack of data. Distillates (petroleum), hydrotreated light, tris(methylphenyl) phosphate: based on available data, the classification criteria are not met. Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene: May cause damage to organs through prolonged or repeated exposure (liver).

Aspiration hazard:

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

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.

12.2. Persistence and degradability

Distillates (petroleum), hydrotreated light: can degrade in air; inherently biodegradable. tris(methylphenyl) phosphate: biodegradable.

12.3. Bioaccumulative potential

tris(methylphenyl) phosphate: may bioaccumulate.

12.4. Mobility in soil

Liquid. Slightly soluble in water. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9). Distillates (petroleum), hydrotreated light: will rapidly evaporate to the air if released into the environment. tris(methylphenyl) phosphate: expected to be relatively immobile in soil.

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. Incinerate pressurized or sealed containers in 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.

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

ADG/ADR/RID/ADN/IMDG/ICAO: UN1950

TDG: UN1950

US DOT: UN1950

14.2. UN proper shipping name

ICAO: Aerosols, Flammable

ADG/IMDG: Aerosols

ADR/RID/ADN: Aerosols, *flammable*

TDG: Aerosols, *flammable*

US DOT: Aerosols, *flammable*

14.3. Transport hazard class(es)

ADG/ADR/RID/ADN/IMDG/ICAO: 2.1

TDG: 2.1

US DOT: 2.1

14.4. Packing group

ADG/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 Limited Quantity in packaging having a rated capacity gross weight of 66 lb. or less (49 CFR 173.306(a),(3),(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

ADG HAZCHEM CODE: N/A HIN: (1)

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 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers. Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances (hazard category P3b, Flammable Aerosols; qualifying quantities: 5,000 t (net), 50,000 t (net)).

15.1.2. National regulations

US EPA SARA TITLE III

312 Hazards:

Flammable aerosol
Compressed gas
Reproductive toxicity

313 Chemicals:

None

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: 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
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)
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
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 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)
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]:

Classification	Classification procedure
Flam. Aerosol 2, H223	On basis of test data
Aquatic Chronic 3, H412	Calculation method

Relevant H-statements: H226: Flammable liquid and vapour.
H280: Contains gas under pressure; may explode if heated.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H361: Suspected of damaging fertility or the unborn child.
H373: May cause damage to organs through prolonged or repeated exposure.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
H412: Harmful to aquatic life with long lasting effects.
H413: May cause long lasting harmful effects to aquatic life.

Hazard pictogram names: Flame, gas cylinder (non-CLP labelling) health hazard

Date of last revision: 4 January 2019

Changes to the SDS in this revision: Sections 2.1, 3, 4.1, 8.1, 11, 14, 15.1, 16.

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.