

1151 Synthoil Longtime Plus 0W-30

LIQUI MOLY Australia Pty Limited

Chemwatch: 5618-76

Version No: 2.1

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Chemwatch Hazard Alert Code: 2

Issue Date: 18/08/2023

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S.GHS.AUS.EN

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

Product name	1151 Synthoil Longtime Plus 0W-30
Chemical Name	Not Applicable
Synonyms	Not Available
Chemical formula	Not Applicable
Other means of identification	Not Available

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

Relevant identified uses	Motor oil. Use according to manufacturer's directions.
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Details of the manufacturer or supplier of the safety data sheet

Registered company name	LIQUI MOLY Australia Pty Limited
Address	Suite 106, 26-32 Pirrama Road Pyrmont NSW 2009 Australia
Telephone	1300 318 961
Fax	Not Available
Website	www.liqui-moly.com.au
Email	Not Available

Emergency telephone number

Association / Organisation	LIQUI MOLY Australia Pty Limited	CHEMWATCH EMERGENCY RESPONSE (24/7)
Emergency telephone numbers	13 11 26 (Poisons Information Centre)	+61 1800 951 288
Other emergency telephone numbers	Not Available	+61 3 9573 3188

Once connected and if the message is not in your preferred language then please dial 01

SECTION 2 Hazards identification

Classification of the substance or mixture

NON-HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Chemwatch Hazard Ratings

	Min	Max
Flammability	1	1
Toxicity	1	1
Body Contact	2	2
Reactivity	1	1
Chronic	0	0

0 = Minimum
1 = Low
2 = Moderate
3 = High
4 = Extreme

Poisons Schedule	Not Applicable
Classification [1]	Hazardous to the Aquatic Environment Acute Hazard Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 3
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Label elements

Hazard pictogram(s)	Not Applicable
Signal word	Not Applicable

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Hazard statement(s)

H412	Harmful to aquatic life with long lasting effects.
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Precautionary statement(s) Prevention

P273	Avoid release to the environment.
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Precautionary statement(s) Response

Not Applicable

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
157707-86-3	20-30	<u>1-decene, trimers, hydrogenated</u>
125643-61-0	1-1.5	<u>C7-9 branched alkyl-3,5-di-tert-butyl-4-hydroxyhydrocinnamate</u>
84605-29-8	1-1.5	<u>zinc O,O-bis(1,3-dimethylbutyl & isopropyl)dithiophosphate</u>
252315-85-8	0.1-<1	<u>calcium long chain alkaryl sulfonate</u>

Legend: 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	<ul style="list-style-type: none"> If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor.
Ingestion	<ul style="list-style-type: none"> If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

Indication of any immediate medical attention and special treatment needed

For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO₂ 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
- Lavage is indicated in patients who require decontamination; ensure use of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology]

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.

SECTION 5 Firefighting measures

Extinguishing media

- Foam.
- Dry chemical powder.

Continued...

- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

Special hazards arising from the substrate or mixture

Fire Incompatibility	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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Advice for firefighters

Fire Fighting	<ul style="list-style-type: none"> ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear full body protective clothing with breathing apparatus. ▶ Prevent, by any means available, spillage from entering drains or water course. ▶ Use water delivered as a fine spray to control fire and cool adjacent area. ▶ Avoid spraying water onto liquid pools. ▶ DO NOT approach containers suspected to be hot. ▶ Cool fire exposed containers with water spray from a protected location. ▶ If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	<ul style="list-style-type: none"> ▶ Combustible. ▶ Slight fire hazard when exposed to heat or flame. ▶ Heating may cause expansion or decomposition leading to violent rupture of containers. ▶ On combustion, may emit toxic fumes of carbon monoxide (CO). ▶ May emit acrid smoke. ▶ Mists containing combustible materials may be explosive. <p>Combustion products include: carbon dioxide (CO₂) phosphorus oxides (PO_x) sulfur oxides (SO_x) other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes.</p>
HAZCHEM	Not Applicable

SECTION 6 Accidental release measures**Personal precautions, protective equipment and emergency procedures**

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	<ul style="list-style-type: none"> ▶ Remove all ignition sources. ▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes. ▶ Control personal contact with the substance, by using protective equipment. ▶ Contain and absorb spill with sand, earth, inert material or vermiculite. ▶ Wipe up. ▶ Place in a suitable, labelled container for waste disposal.
Major Spills	<p>Moderate hazard.</p> <ul style="list-style-type: none"> ▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water course. ▶ No smoking, naked lights or ignition sources. ▶ Increase ventilation. ▶ Stop leak if safe to do so. ▶ Contain spill with sand, earth or vermiculite. ▶ Collect recoverable product into labelled containers for recycling. ▶ Absorb remaining product with sand, earth or vermiculite. ▶ Collect solid residues and seal in labelled drums for disposal. ▶ Wash area and prevent runoff into drains. ▶ If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage**Precautions for safe handling**

Safe handling	<ul style="list-style-type: none"> ▶ Containers, even those that have been emptied, may contain explosive vapours. ▶ Do NOT cut, drill, grind, weld or perform similar operations on or near containers. ▶ DO NOT allow clothing wet with material to stay in contact with skin ▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Prevent concentration in hollows and sumps. ▶ DO NOT enter confined spaces until atmosphere has been checked. ▶ Avoid smoking, naked lights or ignition sources. ▶ Avoid contact with incompatible materials. ▶ When handling, DO NOT eat, drink or smoke. ▶ Keep containers securely sealed when not in use. ▶ Avoid physical damage to containers.
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	<ul style="list-style-type: none">▶ Always wash hands with soap and water after handling.▶ Work clothes should be laundered separately.▶ Use good occupational work practice.▶ Observe manufacturer's storage and handling recommendations contained within this SDS.▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
Other information	<ul style="list-style-type: none">▶ Store in original containers.▶ Keep containers securely sealed.▶ No smoking, naked lights or ignition sources.▶ Store in a cool, dry, well-ventilated area.▶ Store away from incompatible materials and foodstuff containers.▶ Protect containers against physical damage and check regularly for leaks.▶ Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none">▶ Metal can or drum▶ Packaging as recommended by manufacturer.▶ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	<ul style="list-style-type: none">▶ Avoid reaction with oxidising agents

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
1151 Synthoil Longtime Plus 0W-30	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
1-decene, trimers, hydrogenated	Not Available	Not Available
C7-9 branched alkyl-3,5-di-tert-butyl-4-hydroxyhydrocinnamate	Not Available	Not Available
zinc O,O-bis(1,3-dimethylbutyl & isopropyl)dithiophosphate	Not Available	Not Available
calcium long chain alkaryl sulfonate	Not Available	Not Available


Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
calcium long chain alkaryl sulfonate	D	> 0.1 to ≤ 1 ppm
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.	

Exposure controls

Appropriate engineering controls	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. An approved self contained breathing apparatus (SCBA) may be required in some situations.</p> <p>Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.</p>	
	Type of Contaminant:	Air Speed:
	solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)
	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)
	grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)
	Within each range the appropriate value depends on:	

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	<p>Lower end of the range</p> <p>1: Room air currents minimal or favourable to capture</p> <p>2: Contaminants of low toxicity or of nuisance value only.</p> <p>3: Intermittent, low production.</p> <p>4: Large hood or large air mass in motion</p>	<p>Upper end of the range</p> <p>1: Disturbing room air currents</p> <p>2: Contaminants of high toxicity</p> <p>3: High production, heavy use</p> <p>4: Small hood-local control only</p>
	<p>Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.</p>	
Individual protection measures, such as personal protective equipment		
Eye and face protection	<ul style="list-style-type: none"> ▶ Safety glasses with side shields. ▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59]. 	
Skin protection	See Hand protection below	
Hands/feet protection	<ul style="list-style-type: none"> ▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber <p>NOTE:</p> <ul style="list-style-type: none"> ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p> <p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> <p>Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> · frequency and duration of contact, · chemical resistance of glove material, · glove thickness and · dexterity <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> · When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. · When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. · Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use. · Contaminated gloves should be replaced. <p>As defined in ASTM F-739-96 in any application, gloves are rated as:</p> <ul style="list-style-type: none"> · Excellent when breakthrough time > 480 min · Good when breakthrough time > 20 min · Fair when breakthrough time < 20 min · Poor when glove material degrades <p>For general applications, gloves with a thickness typically greater than 0.35 mm, are recommended.</p> <p>It should be emphasised that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</p> <p>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</p> <p>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</p> <ul style="list-style-type: none"> · Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of. · Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p>	
Body protection	See Other protection below	
Other protection	<ul style="list-style-type: none"> ▶ Overalls. ▶ P.V.C apron. ▶ Barrier cream. ▶ Skin cleansing cream. ▶ Eye wash unit. 	

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

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Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	A-AUS / Class1 P2	-
up to 50	1000	-	A-AUS / Class 1 P2
up to 50	5000	Airline *	-
up to 100	5000	-	A-2 P2
up to 100	10000	-	A-3 P2
100+			Airline**

* - Continuous Flow ** - Continuous-flow or positive pressure demand

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO₂), G = Agricultural chemicals, K = Ammonia(NH₃), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear amber coloured to yellow liquid with characteristic odour; does not mix with water.		
Physical state	Liquid	Relative density (Water = 1)	0.856
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	-39 (Setting point)	Viscosity (cSt)	53 @40C
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	210	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled	<p>Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p> <p>There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p> <p>Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.</p> <p>Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.</p>
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual.

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Skin Contact	The liquid may be able to be mixed with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.	
Eye	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).	
Chronic	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.	
1151 Synthoil Longtime Plus 0W-30	TOXICITY	IRRITATION
	Not Available	Not Available
1-decene, trimers, hydrogenated	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Not Available
	Inhalation(Rat) LC50: 0.9 mg/l4h ^[1]	
C7-9 branched alkyl-3,5-di-tert-butyl-4-hydroxyhydrocinnamate	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye (rabbit: non-irritating *
	Oral (Rat) LD50: >200 mg/kg ^[2]	Skin (rat): non-irritating *
zinc O,O-bis(1,3-dimethylbutyl & isopropyl)dithiophosphate	TOXICITY	IRRITATION
	dermal (rat) LD50: >2002 mg/kg ^[1]	Eye: adverse effect observed (irritating) ^[1]
	Inhalation(Rat) LC50: >2.3 mg/l4h ^[1]	Skin: adverse effect observed (irritating) ^[1]
calcium long chain alkaryl sulfonate	TOXICITY	IRRITATION
	Not Available	Not Available
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

C7-9 BRANCHED ALKYL-3,5-DI-TERT-BUTYL-4-HYDROXYHYDROCINNAMATE	Non-sensitising to guinea pig skin * Everspring Chemical MSDS Data show that acute toxicity following oral and topical use of hindered phenols is low. They are not proven to cause mutations. However, long term use may affect the liver, thyroid, kidney and lymph nodes. Liver tumours have been reported.
ZINC O,O-BIS(1,3-DIMETHYLBUTYL & ISOPROPYL)DITHIOPHOSPHATE	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Dithiophosphate alkyl esters is corrosive and toxic to the tissues on skin or oral exposure depending on its concentration. Symptoms included diarrhoea, skin and gastrointestinal irritation, lethargy, reduced food intake, staining about the nose and eye; occasionally, there was drooping of the eyelid, hair standing up, inco-ordination and salivation. Toxicity is reduced following inhalation (due to vapour pressure and high viscosity). It may produce reproductive, developmental and genetic toxicity on experimental animals, but no substantive data is available to establish effect on humans.
CALCIUM LONG CHAIN ALKARYL SULFONATE	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested. For alkaryl sulfonate petroleum additives: Acute toxicity: Existing data indicates relatively low acute toxicity. Animal testing suggested diarrhea and reduced food intake, which is consistent with the detergents in an oil-based vehicle having an irritating effect on the gastrointestinal tract. Subchronic toxicity: Existing data suggests minimal toxicity after chronic exposure by mouth. Repeated skin contact and inhalation in animals caused injury to the skin and the lungs, respectively. Reproductive and Developmental Toxicity: Existing data did not show this group of substances to cause reproductive or developmental toxicity. There was low concern for mutation-causing potential. Animal studies show that calcium sulfonates with a TBN greater than 300 are not skin sensitisers while the results in animals at a TBN (Total Base Number) of 300 exhibit a mixed skin sensitisation response. However, human repeat insult patch tests clearly show that high TBN overbased calcium sulfonates (TBN = 300) are not sensitisers and that low TBN calcium sulfonates do not cause sensitisation in a substantial number of subjects at concentrations of 10% or lower within the definition of sensitisation under EU Regulation (EC) No. 1272/2008. The weight-of-evidence indicates that low TBN sodium and calcium sulfonates (TBN < 300) are skin sensitisers with a specific concentration limit (SCL) of 10% and that high TBN sodium and calcium sulfonates (TBN = 300) are not skin sensitisers. Studies in guinea pigs show that low TBN benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs., para-, sodium salts (EC No. None; CAS No. None; TBN = 3) is a skin sensitizer while benzenesulfonic acid, mono-C20-24 (even)-sec-alkyl derivs., para-, sodium salts (TBN = 448) is not a skin sensitizer. Studies in guinea pigs and human volunteers show that low TBN benzenesulfonic acid, 4-(mono-C15-36 branched alkyl derivs., C24 rich) and benzenesulfonic acid, 4-octadecyl, calcium salts (EC 939-141-9; TBN = 13) are skin sensitisers. Numerous well-conducted, reliable, controlled human (HRIPT) studies with benzene, polypropene derivs., sulfonated, calcium salts (EC 616-278-7; TBN values ranging from 13 to 85), sulfonic acids, petroleum, calcium salts (EC 263-093-9; TBN = 30 to 100), and benzenesulfonic acid, 4-(mono-C15-36 branched alkyl derivs., C24 rich) and benzenesulfonic acid, 4-octadecyl, calcium salts (EC 939-141-6; TBN = 13) show that low TBN calcium sulfonates do not cause sensitisation in a substantial number of subjects at 10% and lower. High TBN calcium sulfonates, sulfonic acids, petroleum, calcium salts (EC 263-093-9; TBN = 375 and 400) do not cause skin sensitisation in guinea pigs. Results of guinea pigs studies at TBN = 300 are mixed; two studies of sulfonic acids, petroleum, calcium salts, (EC 263-093-9) report no skin sensitisation while one study of sulfonic acids, petroleum, calcium salts (EC 263-093-9) and one study of benzene, polypropene derivs., sulfonated, calcium salts (EC 616-278-7) report skin sensitisation. However, numerous well-conducted, reliable, controlled human (HRIPT) studies with benzene, polypropene derivs., sulfonated, calcium salts (EC 616-278-7; TBN = 300) and sulfonic acids, petroleum, calcium salts (EC 263-093-9; TBN = 300) also show that high TBN

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	(TBN = 300) do not cause skin sensitisation. In accordance with EU CLP Regulation (EC) No. 1272/2008, classification is required for low TBN sodium and calcium sulfonates (TBN < 300) with a specific concentration limit of 10% and classification is not required for high TBN calcium sulfonates (TBN = 300).
1-DECENE, TRIMERS, HYDROGENATED & ZINC O,O-BIS(1,3-DIMETHYLBUTYL & ISOPROPYL)DITHIOPHOSPHATE	No significant acute toxicological data identified in literature search.

Acute Toxicity	✗	Carcinogenicity	✗
Skin Irritation/Corrosion	✗	Reproductivity	✗
Serious Eye Damage/Irritation	✗	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✗	STOT - Repeated Exposure	✗
Mutagenicity	✗	Aspiration Hazard	✗

Legend: ✗ – Data either not available or does not fill the criteria for classification
✔ – Data available to make classification

SECTION 12 Ecological information

Toxicity

1151 Synthoil Longtime Plus 0W-30	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
1-decene, trimers, hydrogenated	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
C7-9 branched alkyl-3,5-di-tert-butyl-4-hydroxyhydrocinnamate	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	3mg/l	Not Available
	EC50	48h	Crustacea	>0.008mg/l	2
	LC50	96h	Fish	>74mg/l	Not Available
	EC50(ECx)	72h	Algae or other aquatic plants	3mg/l	Not Available
zinc O,O-bis(1,3-dimethylbutyl & isopropyl)dithiophosphate	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	0.11mg/l	1
	EC50	96h	Algae or other aquatic plants	1-5mg/l	1
	NOEC(ECx)	48h	Crustacea	<0.1mg/l	1
	LC50	96h	Fish	46mg/l	2
calcium long chain alkaryl sulfonate	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

Legend: Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
1-decene, trimers, hydrogenated	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
1-decene, trimers, hydrogenated	LOW (LogKOW = 15.0744)

Mobility in soil

Ingredient	Mobility
1-decene, trimers, hydrogenated	LOW (KOC = 357700000)

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none">▶ DO NOT allow wash water from cleaning or process equipment to enter drains.▶ It may be necessary to collect all wash water for treatment before disposal.▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.▶ Where in doubt contact the responsible authority.▶ Recycle wherever possible or consult manufacturer for recycling options.▶ Consult State Land Waste Authority for disposal.▶ Bury or incinerate residue at an approved site.▶ Recycle containers if possible, or dispose of in an authorised landfill.
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SECTION 14 Transport information

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
1-decene, trimers, hydrogenated	Not Available
C7-9 branched alkyl-3,5-di-tert-butyl-4-hydroxyhydrocinnamate	Not Available
zinc O,O-bis(1,3-dimethylbutyl & isopropyl)dithiophosphate	Not Available
calcium long chain alkaryl sulfonate	Not Available

Transport in bulk in accordance with the IGC Code

Product name	Ship Type
1-decene, trimers, hydrogenated	Not Available
C7-9 branched alkyl-3,5-di-tert-butyl-4-hydroxyhydrocinnamate	Not Available
zinc O,O-bis(1,3-dimethylbutyl & isopropyl)dithiophosphate	Not Available
calcium long chain alkaryl sulfonate	Not Available

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

1-decene, trimers, hydrogenated is found on the following regulatory lists	
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)	
C7-9 branched alkyl-3,5-di-tert-butyl-4-hydroxyhydrocinnamate is found on the following regulatory lists	
Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals	Australian Inventory of Industrial Chemicals (AIIC)
zinc O,O-bis(1,3-dimethylbutyl & isopropyl)dithiophosphate is found on the following regulatory lists	
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4	International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
Australian Inventory of Industrial Chemicals (AIIC)	
calcium long chain alkaryl sulfonate is found on the following regulatory lists	
Australian Inventory of Industrial Chemicals (AIIC)	

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (1-decene, trimers, hydrogenated)
Canada - DSL	No (1-decene, trimers, hydrogenated; calcium long chain alkaryl sulfonate)
Canada - NDSL	No (C7-9 branched alkyl-3,5-di-tert-butyl-4-hydroxyhydrocinnamate; zinc O,O-bis(1,3-dimethylbutyl & isopropyl)dithiophosphate; calcium long chain alkaryl sulfonate)
China - IECSC	No (calcium long chain alkaryl sulfonate)

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National Inventory	Status
Europe - EINEC / ELINCS / NLP	No (C7-9 branched alkyl-3,5-di-tert-butyl-4-hydroxyhydrocinnamate; calcium long chain alkaryl sulfonate)
Japan - ENCS	No (1-decene, trimers, hydrogenated; C7-9 branched alkyl-3,5-di-tert-butyl-4-hydroxyhydrocinnamate; calcium long chain alkaryl sulfonate)
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	No (1-decene, trimers, hydrogenated; calcium long chain alkaryl sulfonate)
USA - TSCA	No (calcium long chain alkaryl sulfonate)
Taiwan - TCSI	Yes
Mexico - INSQ	No (1-decene, trimers, hydrogenated; zinc O,O-bis(1,3-dimethylbutyl & isopropyl)dithiophosphate; calcium long chain alkaryl sulfonate)
Vietnam - NCI	Yes
Russia - FBEPH	No (1-decene, trimers, hydrogenated; C7-9 branched alkyl-3,5-di-tert-butyl-4-hydroxyhydrocinnamate; zinc O,O-bis(1,3-dimethylbutyl & isopropyl)dithiophosphate; calcium long chain alkaryl sulfonate)
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	18/08/2023
Initial Date	18/08/2023

Other information

Ingredients with multiple cas numbers

Name	CAS No
1-decene, trimers, hydrogenated	157707-86-3, 638-68-6

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC - TWA: Permissible Concentration-Time Weighted Average
PC - STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit
IDLH: Immediately Dangerous to Life or Health Concentrations
ES: Exposure Standard
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index
AIIC: Australian Inventory of Industrial Chemicals
DSL: Domestic Substances List
NDSL: Non-Domestic Substances List
IECSC: Inventory of Existing Chemical Substance in China
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
NLP: No-Longer Polymers
ENCS: Existing and New Chemical Substances Inventory
KECI: Korea Existing Chemicals Inventory
NZIoC: New Zealand Inventory of Chemicals
PICCS: Philippine Inventory of Chemicals and Chemical Substances
TSCA: Toxic Substances Control Act
TCSI: Taiwan Chemical Substance Inventory
INSQ: Inventario Nacional de Sustancias Químicas
NCI: National Chemical Inventory
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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