



Material Safety Data Sheet

Garrick Soluble Cutting Oil

REVISION DATE: May 2023

1. COMPANY DETAILS AND PRODUCT IDENTIFICATION

COMPANY NAME: Garrick Herbert Pty Ltd

ADDRESS: 460-462 The Boulevard
(P.O. Box 1181)
Kirrawee NSW 2322

TELEPHONE: 02 9545 6633 Fax 02 9545 4222

EMAIL: sales@garrickherbert.com.au

ABN: 16 002 099 783

PRODUCT NAME: Soluble Cutting Oil

MANUFACTURER'S PRODUCT CODE: SOL5, SOL20, SOL200

USE: Mineral oil based metal forming fluid

ADDITIONAL INFORMATION: Refer to Product Information Sheet for additional information.

OTHER INFORMATION: Visit our website: <https://garrickherbert.com.au/>

2. HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION: HAZARDOUS SUBSTANCE
NON-DANGEROUS GOODS
Hazard classification according to criteria of NOHSC and GHS.
Dangerous goods classification according to Australian
Dangerous Goods Code.

SERIOUS EYE DAMAGE: Category 1



SIGNAL WORD: DANGER

2. HAZARDS IDENTIFICATION (CONT)

HAZARD STATEMENTS: H318: Causes serious eye damage
H412: Harmful to aquatic life with long lasting effects

PREVENTION STATEMENTS: P280: Wear protective gloves/protective clothing/eye protection/face protection

RESPONSE STATEMENTS: P301 + P310 - IF SWALLOWED: Immediately call THE POISONS INFORMATION CENTER on 131126 or doctor/physician
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISONS INFORMATION CENTER or doctor/physician
P331 - Do NOT induce vomiting

STORAGE STATEMENTS: P405 - Store locked up

DISPOSAL STATEMENTS: P501 - Dispose of contents/ container to an approved waste disposal plant
P273 - Avoid release to the environment

OTHER INFORMATION: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and environment on disposal. All used oils should be handled with caution and skin contact avoided as far as possible.

3. IDENTIFICATION / COMPOSITION OF INGREDIENTS

CHEMICAL CHARACTERISTICS: Liquid

INGREDIENTS:-

CHEMICAL ENTITY:	PROPORTION
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	50 – 100%
Sulfonic acids, petroleum, sodium salts	2.5 – 10%
Highly refined base oil (Viscosity >20.5 cSt @40°C)	2.5 – 10%
2,6-Di-tert-butyl-p-cresol	0 – 1%

ADDITIONAL INFORMATION: Product containing mineral oil with less than 3% DMSO extract as measured by IP 346 see Section 15 for additional information on base oils

4. FIRST AID MEASURES

HEALTH EFFECTS

GENERAL ADVICE:	Immediate medical attention is required. Do not get in eyes, on skin, or on clothing.
SWALLOWED:	Clean mouth with water and drink plenty of water afterwards. Do not induce vomiting without medical advice.
EYE:	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Seek immediate medical attention/advice.
SKIN:	Remove contaminated clothing and wash skin thoroughly with plenty of soap and water. If irritation occurs, seek medical attention. High pressure injection through the skin requires URGENT medical attention for possible incision, irrigation and/or debridement. Contact with molten material will require treatment by a physician for burns (Do not remove material).
INHALED:	Remove victim from exposure to fresh air – avoid becoming a casualty. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have qualified person give oxygen through face mask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage and seek urgent medical aid.
FIRST AID FACILITIES:	Normal washroom facilities are generally suitable. Ensure an eye wash station and safety shower is available and ready for use.
PROTECTION OF FIRST AIDERS:	Use personal protective equipment. Avoid contact with skin, eyes and clothing.
OTHER INFORMATION:	Keep water and mild soap near work site.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

SYMPTOMS	Eye damage/irritation.
ADVICE TO DOCTOR:	Treat symptomatically, for advice, contact the Poisons Information Centre 131 126

5. FIRE FIGHTING MEASURES

FIRE/EXPLOSION HAZARD

HAZARDS OF USE/STORAGE:	Product is a C2 combustible liquid according to AS 1940. This product is combustible if preheated.
HAZARDS COMBUSTION PRODUCTS:	Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide

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5. FIRE FIGHTING MEASURES (CONT)

FIRE-FIGHTING RECOMMENDATIONS: If safe to do so, remove containers from path of fire. Keep storage tanks, pipelines, containers, fire exposed surfaces, etc. cool with water spray. Avoid spreading liquid and fire by water flooding.

PRECAUTION: Water may cause splattering

SUITABLE EXTINGUISHING MEDIA: Use water fog, water spray, foam, carbon dioxide or dry chemical. Do not use a solid water stream as it may scatter and spread fire.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

PROTECTIVE MEASURES: Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.. Water spray may be used to cool down heat-exposed containers.

REACTIVITY: May react with strong oxidising agents.

6. ACCIDENTAL RELEASE MEASURES

SPILLS & DISPOSAL: Slippery when spilt. Avoid accidents, clean up immediately.
CLEAN-UP PROCEDURE - SMALL SPILLS (20L or less): Absorb or contain liquid with sand, earth or spill control material. Shovel up using non-sparking tools and place in a sound labelled sealable container for subsequent safe disposal. Place leaking containers in a sound labelled drum.
CLEAN-UP PROCEDURES - LARGE SPILLS (Greater than 20L): Transfer to a sound labelled, sealable container for product recovery or safe disposal. Treat residues as for small spills.

PERSONAL PRECAUTIONS: Extinguish naked flames. Remove ignition sources. No smoking. Avoid sparks. Take precautionary measures against static discharges. Avoid contact with skin, eyes and clothing. Evacuate the area of non-essential personnel. Shut off leaks, if possible without personal risk. Do not breathe vapours. Ventilate contaminated area thoroughly. Dispose of according to local regulations.

OTHER INFORMATION: **PROCEDURES IN CASES OF LEAKAGE OR BREAKAGE:** Stop the source of the leak or release and contain spill if possible. Ventilate area. Use respirator and protective clothing outlined in this MSDS. Cover spill with inert absorbent earth. Use a stiff brush to mix thoroughly. Sweep up and place in a sound labelled disposable container. Prevent contamination of groundwater or surface water. If this material enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Prevent spillages. Ensure the appropriate personal protective equipment is used when handling this product. Ensure high level of personal hygiene is maintained when using this product. That is; always wash hands before eating, drinking smoking or using the toilet.

SAFE STORAGE CONDITIONS: Store in a cool, dry, well ventilated area away from sources of heat or ignition. This product should be stored away from foodstuffs and strong oxidising agents. Keep containers closed at all times - check regularly for leaks.

STORAGE REGULATIONS: Store in a well ventilated place away from ignition sources, oxidising agents, foodstuffs and clothing. Keep containers closed when not in use. Refer to AS 1940 – The Storage and Handling of Flammable Liquids, and NOHSC: 1015 – National Standard for Storage and Handling of Workplace Dangerous Goods for further information.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

NATIONAL EXPOSURE STANDARDS: No exposure standard has been established for this product. NOHSC Exposure Standards:
Oil mists – time weighted average (TWA) 5 mg/m³ is recommended.

CONTROL PARAMETERS

Chemical Name	Australia	New Zealand	New Zealand
	TWA	TWA	STEL
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	-	5 mg/m ³	10 mg/m ³
Highly refined base oil (Viscosity>20.5 cSt @40°C)	-	5 mg/m ³	10 mg/m ³
2,6-Di-tert-butyl-p-cresol	10 mg/m ³	10 mg/m ³	

Hydrocarbon solvent vapor mixtures which do not have substance specific occupational exposure limits may be evaluated by the Reciprocal Calculation Procedure (RCP) which assigns a recommended occupational exposure limit based on the mass composition and hydrocarbon group guidance values (GGVs). Applicable recommended occupational exposure limits are shown in the table below.

Chemical name	RCP OEL	Manufacturer
Paraffin oils 8012-95-1		TWA: 5 mg/m ³ excluding metal working fluids, highly & severely refined

Chemical name	RCP OEL	Manufacturer
Distillates (petroleum), hydrotreated middle 64742-46-7	RCP: TWA 1200 mg/m ³ 143ppm	

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (CONT)

OTHER EXPOSURE INFORMATION:	<p>Exposure Standard means the average concentration of a particular substance in the worker's breathing zone, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all workers. It can be of three forms; time-weighted average (TWA), peak limitation, or short term exposure limit (STEL).</p> <p>No exposure standards have been established for this material by the Australian National Occupational Health & Safety Commission (NOHSC). However, the available exposure limits on the ingredients are given above.</p>
ENGINEERING CONTROLS:	<p>Maintain concentration below recommended exposure limit. Special ventilation is not normally required. However, in the operation of certain equipment or at elevated temperatures mists or vapour may be generated and localised exhaust ventilation should be provided to maintain airborne concentration levels below the exposure standard or the Manufacturer's recommended exposure standard.</p>
RESPIRATORY PROTECTION:	<p>A respirator is not normally required. Airborne concentrations should be kept at lowest level possible. If vapours, mists or dusts are generated and the recommended exposure limit for the product is exceeded, use appropriate AS/NZS 1715/1716 approved half -face filter respirator suitable for organic vapours or air supplied respirator is worn. Air supplied respirators should always be worn when the airborne concentration of the contaminant or the oxygen content of the air is unknown</p>
EYE PROTECTION:	<p>Safety glasses, goggles or face shield as appropriate to AS/NZS 1337.</p>
HAND PROTECTION:	<p>Laminated film, nitrile or other suitable gloves conforming to AS/NZS 2161: Occupational Protective Gloves.</p>
FOOTWEAR:	<p>Industrial safety shoes.</p>
BODY PROTECTION:	<p>Suitable workwear should be worn to protect personal clothing, e.g. cotton overalls buttoned at neck and wrist.</p>
HYGIENE MEASURES:	<p>Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.</p>
THERMAL HAZARDS:	<p>None under normal use conditions.</p>

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Liquid
APPEARANCE:	Clear blue liquid
ODOUR:	Not available
pH (@5%):	approx. 9.2
MELTING POINT:	No Information available
BOILING POINT:	No Information available
FLASHPOINT Cleveland Open Cup (COC):	> 150 °C
EVAPORATION RATE:	No Information available
FLAMMABILITY (SOLID, GAS):	No Information available
RELATIVE DENSITY (g/cm ³ @15°C):	0.895 typical
FLAMMABILITY LIMITS -LOWER:	No Information available
FLAMMABILITY LIMITS -UPPER:	No Information available
VAPOUR PRESSURE:	No Information available
VAPOUR DENSITY:	No Information available
SOLUBILITY IN WATER:	Soluble, forms an emulsion.
PARTITION COEFFICIENT:	Not applicable
AUTOIGNITION TEMPERATURE:	No Information available
DECOMPOSITION TEMPERATURE:	No Information available
KINEMATIC VISCOSITY:	>20.6 cSt @ 40°C
EXPLOSIVE PROPERTIES:	Not applicable
OXIDISING PROPERTIES:	Not applicable
KINEMATIC VISCOSITY @ 100°C:	No Information available
POUR POINT:	No Information available
VOC CONTENT (ASTM E-1868-10):	No Information available

9. PHYSICAL AND CHEMICAL PROPERTIES (CONT)

VOC CONTENT:	No Information available
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10. STABILITY AND REACTIVITY

REACTIVITY:	No information available.
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CHEMICAL STABILITY: Stable under normal conditions of use.

POSSIBILITY OF HAZARDOUS REACTIONS: Will react with strong oxidising agents. Thermal degradation will give off carbon monoxide, carbon dioxide, oxides of sulphur and nitrogen, amines and other nitrogen compounds, fumes, and smoke.

CONDITIONS TO AVOID: Keep away from open flames, hot surfaces and sources of ignition.

INCOMPATIBLE MATERIALS: None known based on information supplied.

HAZARDOUS DECOMPOSITION PRODUCTS: Incomplete combustion and thermalolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

INFORMATION ON LIKELY ROUTES OF EXPOSURE

PRODUCT INFORMATION - PRINCIPLE ROUTES OF EXPOSURE

INHALATION: None known.

EYE CONTACT: May result in permanent damage including blindness.

SKIN CONTACT: None known.

INGESTION: None known

SYMPTOMS CORROSIVE: Causes irreversible eye damage.

NUMERICAL MEASURES OF TOXICITY - PRODUCT INFORMATION

ATE_{MIX} (DERMAL): 63,267.00 mg/kg

ACUTE TOXICITY - PRODUCT INFORMATION

Product does not present an acute toxicity hazard based on known information

11. TOXICOLOGICAL INFORMATION (CONT)

ACUTE TOXICITY - COMPONENT INFORMATION

Chemical name LC50	Oral LD50	Dermal LD50	Inhalation
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	>2000 mg/kg	>2000 mg/kg	
Sulfonic acids, petroleum, sodium salts	5000 mg/kg (Rat)		
Highly refined base oil (Viscosity >20.5 cSt @40°C)	>2000 mg/kg	>2000 mg/kg	
2,6-Di-tert-butyl-p-cresol	5000 mg/kg (Rat)	5000 mg/kg (Rabbit)	

DELAYED AND IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT AND LONG-TERM EXPOSURE

SKIN CORROSION/IRRITATION:	Based on available data, the classification criteria are not met.
SERIOUS EYE DAMAGE/EYE IRRITATION:	Causes severe eye damage.
RESPIRATORY OR SKIN SENSITIZATION:	Based on available data, the classification criteria are not met.
GERM CELL MUTAGENICITY:	Based on available data, the classification criteria are not met.
CARCINOGENICITY;	Based on available data, the classification criteria are not met.
REPRODUCTIVE TOXICITY:	Based on available data, the classification criteria are not met.
SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (SINGLE EXPOSURE):	Based on available data, the classification criteria are not met.
SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (REPEATED EXPOSURE):	Based on available data, the classification criteria are not met.
ASPIRATION HAZARD:	Based on available data, the classification criteria are not met.
EXPOSURE LEVELS:	See section 8 for more information
INTERACTIVE EFFECTS:	None known

12. ECOLOGICAL INFORMATION

ECOTOXICITY: Harmful to aquatic life with long lasting effects.

Chemical name	Algae /aquatic plants	Fish	Crustacea
Sulfonic acids, petroleum		3.9: 96 h Oncorhynchus mykiss mg/L LC50	3.9: 48 h Daphnia magna mg/L EC50
Sodium salts		32.6: 96 h Pimephales promelas mg/L LC50	
2,6-Di-tert-butyl-p-cresol	6: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.42: 72 h Desmodesmus subspicatus mg/L EC50	5 48 h Oryzias latipes mg/L LC50	

PERSISTENCE / DEGRADABILITY: This product is not readily biodegradable, but it can be degraded by micro-organisms, it is regarded as being inherently biodegradable.

BIOACCUMULATIVE POTENTIAL:

Chemical name	Partition coefficient
2,6-Di-tert-butyl-p-cresol	4.17

MOBILITY: No information available.

OTHER ADVERSE EFFECTS: No information available.

13. DISPOSAL CONSIDERATIONS

SAFE HANDLING AND DISPOSAL METHODS: Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

DISPOSAL OF ANY CONTAMINATED PACKAGING: Do not reuse empty containers.

ENVIRONMENTAL REGULATIONS: No information available.

14. TRANSPORT INFORMATION

ROAD & RAIL TRANSPORT:
ADG REQUIREMENT Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

MARITIME TRANSPORT:
IMO/IMDG REQUIREMENT Not classified as a Dangerous Good according to the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

AIR TRANSPORT:
ICAO/IATA REQUIREMENT Not classified as a Dangerous Good according to the criteria of the International Maritime Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

15. REGULATORY INFORMATION

POISON SCHEDULE: Not scheduled.

AUSTRALIAN INVENTORY STATUS: All components are listed.

16. OTHER INFORMATION

CONTACT PERSON/POINT: General Manager 02 9545 6633

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.

16. OTHER INFORMATION (CONT)

LITERATURE REFERENCES:

- * NOHSC: 2011 National Code of Practice for the preparation of Material Safety Data Sheets.
- * Safe Work Australia: 2016 Preparation of Safety Data Sheets for Hazardous Chemicals
- * NOHSC: 1008 Approved Criteria for Classifying Hazardous Substances.
- * NOHSC: 10005 List of Designated Hazardous Substances.
- * NOHSC: 1005 Control of Workplace Hazardous Substances, National Code of Practice.
- * NOHSC: 2007 Control of Workplace Hazardous Substances, National Code of Practice.
- * NOHSC: 1003 Exposure Standards for Atmospheric Contaminants in the Occupational Environment, National Exposure Standards.
- * NOHSC: 3008 Exposure Standards for Atmospheric Contaminants in the Occupational Environment, Guidance Note.
- * NOHSC: 1015 Storage and Handling of Workplace Dangerous Goods, National Standard.
- * NOHSC: 2017 Storage and Handling of Workplace Dangerous Goods, National Code of Practice.
- * SUSDP: Standard for the Uniform Scheduling of Drugs and Poisons
- * ADG: Australian Dangerous Goods Code
- * MSDS of component materials.

LAST CHANGE:

Supersedes document issued: New
Reason/s for revision: Minor editorial adjustments.

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END OF SDS