SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION: PRODUCT IDENTIFIER/CHEMICAL IDENTITY

1.1 PRODUCT IDENTIFIER: **HP 2 Stroke Oil**

1.2 PRODUCT CODE: 0781 319 84..

1.3 RELEVANT IDENTIFIED USES OF THE MIXTURE AND USES ADVISED AGAINST:
RELEVANT IDENTIFIED USES: 2 Stroke engine oil.
RESTRICTIONS ON USE: None known.
1.4 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:
SUPPLIER NAME: Stihl Pty Ltd (ABN: 76 004 881 145),
ADDRESS: 5 Kingston Park Court, Knoxfield, Victoria, Australia, 3180
9 Bishop Browne Place, East Tamaki, Auckland, New Zealand, 1730.
E-MAIL: csc@stihl.com.au; info@stihl.co.nz
TELEPHONE NUMBER: +61 3 9215 6666 (NZ: +64 9262 4000)
1.5 EMERGENCY TEL. NUMBER: (Poisons Information Centre (Aust 131 126; NZ 0800 764 766))

SECTION 2 – HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE HAZARDOUS CHEMICAL:
NOHSC 1008: This product is a mixture and is not classified as Hazardous according to the criteria of the National Occupational Health and Safety Commission (SafeWork Australia).

GHS CLASSIFICATION HAZARD CLASS & CATEGORY: The product is a mixture and is not classified as Hazardous under the Model Work Health and Safety Regulations.

2.2 LABEL ELEMENTS INCLUDING PRECAUTIONARY STATEMENTS:
SIGNAL WORD: Not applicable.
HAZARD STATEMENTS: Not applicable.
PRECAUTIONARY STATEMENTS: Not applicable.

2.3 OTHER HAZARDS: The mixture has a low order of toxicity associated with it. Excessive exposure may result in mild irritation to the eye, skin or respiratory system. As for all chemical products, persons should not expose open wounds, cuts, abrasions or irritated skin to this material.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NUMBER	Concentration % W/W	Risk Phrases*	GHS Classification
Complex mixture of base oils and additives	-	To 100%	Not Applic	Not Applic

Not Applic = Not Applicable
* Please see Section 15 of this SDS for full text of the Risk Phrases

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SECTION 4 – FIRST AID MEASURES

4.1 DESCRIPTION OF NECESSARY FIRST AID MEASURES:

INGESTION: Rinse mouth out with water. Due to the blend of ingredients present, the manufacturer recommends that if swallowed, do NOT induce vomiting. If irritation develops or persists or vomiting has occurred after ingestion, seek medical assistance.

EYE: If in eyes, hold eyelids apart and flush the eye immediately with large amounts of running water. Continue flushing for at least 15 minutes or until advised to stop by a doctor. Check for contact lenses. If there are contact lenses, these should be removed under supervision. After flushing, if irritation develops or persists, seek medical assistance.

SKIN CONTACT: If skin or hair contact has occurred remove any contaminated clothing and footwear, wash skin or hair thoroughly with soap and water. If irritation develops or persists, consult a Doctor.

INHALATION: If affected, remove the patient from further exposure into fresh air, if safe to do so. If providing assistance, avoid exposure to yourself - only enter contaminated environments with adequate respiratory equipment. Once removed, lay patient down in a well-ventilated area and reassure them whilst waiting for medical assistance. If not breathing, provide artificial respiration and seek immediate medical assistance. If unconscious, place in a recovery position and seek immediate medical assistance.

PROTECTION FOR FIRST AIDERS: No personal shall place themselves in a situation that is potentially hazardous to themselves. Always ensure that you are wearing gloves when dealing with first aid procedures involving chemicals and/or blood.

FIRST AID FACILITIES: Eye wash fountain and safety showers or at least a source of running water are recommended in the area where the product is used.

4.2 MOST IMPORTANT SYMPTOMS & EFFECTS, BOTH ACUTE & DELAYED, CAUSED BY EXPOSURE:

ACUTE: Ingestion or inhalation of vapours may lead to irritation of the mouth and respiratory tract. Eye contact may lead to localised burning, redness and tearing. Skin contact may lead to redness or itching.

CHRONIC: Skin contact may aggravate/exacerbate existing skin conditions, such as dermatitis.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NECESSARY:

ADVICE TO DOCTOR: Treat symptomatically. As the product is hydrocarbon based, if vomiting has occurred after ingestion, the patient should be monitored for adverse effects.

SECTION 5 – FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

SUITABLE MEDIA: Use extinguishing media appropriate for surrounding fire. Use carbon dioxide, foam, dry chemical or water spray. Spray down fumes resulting from fire.

UNSUITABLE MEDIA: Avoid using full water jet directed at residual material that may be burning. Water may cause splattering on hot oil. Product will float on water.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

COMBUSTION HAZARDS: Combustion may produce oxides of carbon as well as smoke and irritating vapours.

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SECTION 5 – FIRE FIGHTING MEASURES Continued

5.3 ADVICE FOR FIREFIGHTERS:

FIRE: This product is not flammable under conditions of use. Is a hydrocarbon-based liquid that will burn if preheated - Typical Flash Point 266°C. Keep storage tanks, pipelines, fire exposed surfaces, etc. cool with water spray.

HAZCHEM CODE: Not applicable.

EXPLOSION: No information to indicate that the product is an explosion hazard. Extinguish all sources of flame or spark. Closed containers may explode when exposed to extreme heat.

PROTECTIVE EQUIPMENT: In the event of a fire, wear full protective clothing and self-contained breathing equipment with full-face piece operated in the pressure demand or other positive pressure mode.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

PERSONAL PROTECTION: For small spills, wear Nitrile gloves, glasses/goggles, boots and full-length clothing. During routine operation a respirator is not required. However, if mists or vapours are generated, an approved organic vapour/particulate respirator is required. For large spills, or in confined spaces, a full chemically resistant body-suit is recommended and the atmosphere must be evaluated for oxygen deficiency. If in doubt wear self-contained breathing apparatus.

CONTROL MEASURES: Ventilate area and extinguish and/or remove all sources of ignition. Stop the leak if safe to do so. Caution: The spilled product will be slippery. Avoid contact with the spilled material.

EMERGENCY PROCEDURES: In the event of a spill or accidental release, notify the relevant authorities in accordance with all applicable regulations.

6.2 ENVIRONMENTAL PRECAUTIONS:

SPILL ADVICE: Do not allow product to enter drains, surface water, sewers or watercourses - inform local authorities if this occurs.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

CONTAINMENT: Contain the spill and absorb with a proprietary absorbent material, sand or earth. For large spills prepare a bund/barrier/dyke ahead of the spill to confine the spill and allow later recovery. If there is the possibility of spills to enter drains, surface water, sewers or watercourses ensure bunding, or that drains are covered, to minimise the potential for this to occur.

CLEANING PROCEDURES: Having contained the spill, as mentioned above, collect all material quickly and place used absorbent in suitable containers. Follow local regulations for the disposal of waste. For large spills that have been bunded, the material can be pumped into vessels and returned for reprocessing or destruction. Personnel must wear gloves, goggles or glasses, boots and full-length clothing during cleaning procedures. Wash contaminated area and objects with detergent and water after spill has been cleared. Rinse the cleaned area with water. Do not allow wash water or rinsings to enter drains, surface water, sewers or water courses.

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SECTION 7 – HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

7.1 PRECAUTIONS FOR SAFE HANDLING:

SAFE HANDLING: Avoid contact with the product by using appropriate protective equipment such as gloves, glasses or goggles and full-length clothing. Prevent small spills and leakage to avoid slip hazards. Properly dispose of any contaminated rags or cleaning materials in order to prevent fire hazards. Eating, drinking, and smoking should be prohibited in the area where this material is handled, stored and processed. Workers should follow good personal hygiene practices, such as washing hands before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Keep containers tightly closed when not in use. Prevent product from entering waterways, drains or sewers.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATABILITIES:

SAFE STORAGE: This product is a hydrocarbon-based liquid that will burn if preheated. Store in a well ventilated area away from direct sunlight, ignition sources, oxidising agents, foodstuffs and clothing. Keep containers closed when not in use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

INCOMPATIBILITIES: Oxidizing substances including strong acids.

SECTION 8 – EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 EXPOSURE CONTROL MEASURES:

EXPOSURE LIMIT VALUES: Exposure standards for the product have not been established. However, in the operation of certain equipment or at elevated temperatures, if oil mists or aerosols are generated the following Exposure Standard should be observed:
TWA: 5 mg/m^3
STEL: 10 mg/m^3 (ACGIH)

8.2 BIOLOGICAL MONITORING: No data available.

8.3 CONTROL BANDING: No data available.

8.4 ENGINEERING CONTROLS:

ENGINEERING CONTROLS: Special ventilation is not normally required. However, in the operation of certain equipment or at elevated temperatures mists or vapour may be generated and local exhaust ventilation should be provided to maintain airborne concentration levels below the nominated exposure standard.

8.5 INDIVIDUAL PROTECTION MEASURES:

EYE & FACE PROTECTION: Wear safety glasses/goggles to avoid eye contact when handling. If there is a risk of splashing during use, a full face shield is recommended. Use eye protection in accordance with AS 1336 and AS 1337.

SKIN (HAND) PROTECTION: If there is the chance of contact with the material wear gloves to provide hand protection. Nitrile rubber gloves are recommended.

SKIN (CLOTHING) PROTECTION: During normal operating procedures, long sleeved clothing is recommended to avoid skin contact. Soiled clothing should be washed with detergent prior to re-use.

RESPIRATORY PROTECTION: During routine operation a respirator is not required. However, if mists or vapours are generated, an approved half face organic vapour/particulate respirator is required. Use respirators in accordance with AS 1715 and AS 1716.

THERMAL PROTECTION: Not applicable.

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SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE:	Viscous red liquid.
ODOUR:	Characteristic lubricating oil odour.
ODOUR THRESHOLD:	No data available.
pH:	Not applicable.
MELTING/FREEZING POINT:	Not applicable.
INITIAL BOILING POINT:	No data available.
BOILING RANGE (°C):	> 230°C.
FLASHPOINT (°C):	Typically 266°C.
EVAPORATION RATE:	No data available.
FLAMMABILITY LIMITS (%):	No data available.
VAPOUR PRESSURE (kPa):	No data available.
VAPOUR DENSITY:	No data available.
DENSITY (g/mL @ 20°C):	Typically 0.88.
SOLUBILITY IN WATER(g/L):	Insoluble in water.
PARTITION COEFFICIENT:	> 3 log POW for n-octanol/water.
AUTO-IGNITION TEMP (°C):	> 230°C.
DECOMPOSITION TEMP (°C):	No data available.
VISCOSITY (cSt @ 100°C):	Typically 12.6.
VISCOSITY (cSt @ 40°C):	No data available.

SECTION 10 – STABILITY AND REACTIVITY

10.1 REACTIVITY: The product does not pose any further reactivity hazards other than those listed in the following sub-sections.

10.2 CHEMICAL STABILITY: Stable under recommended storage and handling conditions (see section 7).

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: Keep away from strong oxidising agents, such as strong acids, chlorates, nitrates and peroxides. Hazardous polymerisation does not occur.

10.4 CONDITIONS TO AVOID: Observe the usual precautionary measures for handling chemicals. Do not heat the container or leave the container open when not in use. Avoid sources of ignition.

10.5 INCOMPATIBLE MATERIALS: Strong oxidising agents including concentrated acids.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS: Hazardous decomposition products are not expected to form during normal storage requirements. See Section 5.2 for Hazardous Combustion products.

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:
The product is a mixture and test data is not available for the product as a whole.

11.2 ACUTE TOXICITY:

SWALLOWED: This product is expected to have a low order of toxicity associated with it when ingested. It may cause slight irritation to the mouth, throat and digestive tract. Based upon assessment of similar products, the Acute Oral Toxicity is expected to be LD_{50} (rat) > 2000 mg/kg when tested against OECD Guideline 420 or similar. During normal usage ingestion should not be a means of exposure.

EYE: May be mildly irritating to the eyes. Symptoms may include localised burning, redness and tearing. Correct handling procedures incorporating appropriate eye protection should minimise the risk of eye irritation.

SAFETY DATA SHEET

SECTION 11 – TOXICOLOGICAL INFORMATION Continued

SKIN: May be mildly irritating to the skin. Correct handling procedures incorporating appropriate protective clothing and gloves should minimise the risk of skin irritation. People with pre-existing skin conditions, such as dermatitis, should take extreme care so as not to exacerbate the condition.

INHALED: No data to indicate a toxic inhalation hazard. Based upon assessment of similar products, the Acute Inhalation Toxicity is expected to be LC_{50} (rat, 4 hours) >5000 mg/m^3 when tested against OECD Guideline 403 or similar. Negligible irritation hazard at ambient temperature or under normal handling conditions. Inhalation of vapours or mist (generated at elevated temperatures or by mechanical action) may cause irritation to the nose and throat.

11.2 SKIN CORROSION/ IRRITATION: This product is not expected to exhibit Dermal Corrosivity/Irritation according to OECD Test 404, based on the available data and the known hazards of the components.

11.3 SERIOUS EYE DAMAGE/ IRRITATION: This product is not expected to exhibit Eye Irritation or Serious Damage/ Corrosivity according to OECD Test 405, based on the available data and the known hazards of the components.

11.4 RESPIRATORY OR SKIN SENSITISATION: This product is not expected to be a skin sensitiser according to OECD Test 406, based on the available data and the known hazards of the components. This product is not expected to be a respiratory tract sensitiser, based on the available data and the known hazards of the components.

11.5 GERM CELL MUTAGENICITY: This product is not expected to be mutagenic according to tests such as OECD Tests 471, 475, 476, 478 and 479, based on the available data and the known hazards of the components.

11.6 CARCINOGENICITY: This product is not expected to be a carcinogen according to OECD Test 451, based on the available data and the known hazards of the components. Long term animal experiments have shown that any health risks are associated with the level of aromatic and polycyclic constituents in the product. These constituents are removed during the manufacturing process to a level at which no health risks are expected as a result of normal handling. Representative testing of the Base Oils used to manufacture lubricants shows that they pass IP-346.

11.7 REPRODUCTIVE TOXICITY: This product is not expected to be a reproductive hazard according to tests such as OECD Tests 414 and 421, based on the available data and the known hazards of the components.

11.8 SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE: This product is not expected to cause organ damage from a single exposure, based on the available data and the known hazards of the components.

11.9 SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE: This product is not expected to cause organ damage from prolonged or repeated exposure according to tests such as OECD Tests 410 and 412, based on the available data and the known hazards of the components.

11.10 ASPIRATION HAZARD: This product is not expected to be an aspiration hazard, based on the available data and the known hazards of the components. However, as the product is hydrocarbon based, if vomiting has occurred after ingestion, the patient should be monitored for adverse effects.

11.11 OTHER INFORMATION: Used oils may contain harmful impurities that can accumulate during usage. Due to the use of oils in different types of equipment the types of impurities that accumulate during its usage are unknown. Therefore, all used oils should be handled with caution and skin contact should be avoided by wearing suitable gloves, such as those made of nitrile rubber.

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SECTION 12 – ECOLOGICAL INFORMATION

12.1 ECOTOXICITY: There is no data available for the product as a whole. Based upon calculated values, the overall product would not be expected to be rated.

12.2 PERSISTENCE & DEGRADABILITY: Based on the available data and the known hazards of the components and similar products the product is not expected to be readily biodegradable. Major constituents are expected to be inherently biodegradable, however the product contains components that may persist in the environment.

12.3 BIOACCUMULATIVE POTENTIAL: No information is available.

12.4 MOBILITY IN SOIL: If the product enters soil, based upon similar products it is expected that it will adsorb onto soil particles and will not be mobile.

12.5 OTHER ADVERSE EFFECTS: Based on the available data and the known hazards of the components and similar products the product is not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential. The product is a mixture of non-volatile components, which are not expected to be released to the air in any significant amounts.

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 DISPOSAL METHODS:

PRODUCT: The product should not be released to the environment, so any unused material should be recycled wherever possible or be disposed of as hazardous waste at an appropriate collection depot. If this is not possible, the product is suitable for burning in an enclosed burner where it can be used as a fuel source. The product is also suitable for incineration at very high temperatures to prevent formation of undesirable combustion products. Spilled product that cannot be recovered should be absorbed and then shovelled into a suitable waste container, such as a plastic drum and then be treated as a solid waste. Follow Government regulations for disposal of such waste. Do not mix new or used lubricating oils with solvents, brake fluids or coolants when disposing. All unused, waste or spilled product must be taken for recycling or disposal by suitably licensed contractors in accordance with Government regulations.

CONTAINERS: Empty containers may contain residual oil. They should be completely drained and then stored until reconditioned or disposed of. Empty drums should be taken for recycling or disposal through suitably licensed contractors in accordance with Government regulations. Where the containers are of metal construction they should not be pressurised, cut by a grinder, welded, brazed, soldered, drilled or exposed to heat, flames or other sources of ignition. Closed metal containers when exposed to such conditions/treatment may explode causing serious injury or death.

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SECTION 14 – TRANSPORT INFORMATION

This product is not regulated for land, sea or air transportation.

14.1 LAND (ADG Code):

UN NUMBER:	Not applicable
UN PROPER SHIPPING NAME:	Not applicable
TRANSPORT HAZARD CLASS(ES):	Not applicable
PACKAGING GROUP:	Not applicable
ENVIRONMENTAL HAZARDS:	Not applicable
SPECIAL PRECAUTIONS FOR USER:	Not applicable
HAZCHEM CODE:	Not applicable

14.2 SEA (IMDG):

UN NUMBER:	Not applicable
UN PROPER SHIPPING NAME:	Not applicable
TRANSPORT HAZARD CLASS(ES):	Not applicable
PACKAGING GROUP:	Not applicable
ENVIRONMENTAL HAZARDS:	Not applicable
SPECIAL PRECAUTIONS FOR USER:	Not applicable

14.3 AIR (IATA):

UN NUMBER:	Not applicable
UN PROPER SHIPPING NAME:	Not applicable
TRANSPORT HAZARD CLASS(ES):	Not applicable
PACKAGING GROUP:	Not applicable
ENVIRONMENTAL HAZARDS:	Not applicable
SPECIAL PRECAUTIONS FOR USER:	Not applicable

SECTION 15 – REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS:
APPLICABLE REGULATIONS:

SUSMP:	Not scheduled.
AICS:	All ingredients are on the AICS List.
MONTREAL PROTOCOL:	Not applicable to this product.
STOCKHOLM CONVENTION:	Not applicable to this product.
ROTTERDAM CONVENTION:	Not applicable to this product.
BASEL CONVENTION:	Not applicable to this product.
INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS (MARPOL):	Not applicable.

SAFETY DATA SHEET

SECTION 15 – REGULATORY INFORMATION Continued

OTHER REGULATORY INFORMATION:

RISK PHRASES [NOHSC:1008]: Not applicable.
SAFETY PHRASES
[NOHSC:1008]: Not applicable

GHS CLASSIFICATION HAZARD CLASS & CATEGORY
AND HAZARD STATEMENT: Not applicable.

HSNO APPROVAL NUMBER: Not applicable.

HSNO GROUP TITLE: Not applicable.

SECTION 16 – ANY OTHER RELEVANT INFORMATION

SDS INFORMATION:
Date of SDS Preparation: 15th July 2013 **Revision:** 0.0

REVISION CHANGES: Initial preparation of SDS.

ACRONYMS:

SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
CAS Number	Chemical Abstracts Service Registry Number
EINECS	European Inventory of Existing Commercial Chemical Substances
UN Number	United Nations Number
OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
IUCLID	International Uniform Chemical Information Database
RTECS	Registry of Toxic Effects of Chemical Substances
R-Phrase	Risk Phrases
S-Phrase	Safety Phrases
%W/W	Percent weight for weight
OECD	Organisation for Economic Co-Operation and Development
ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail
HAZCHEM Code	An emergency action code of numbers and letters which gives information to emergency services
NOHSC	National Occupational Health and Safety Commission
AICS	Australian Inventory of Chemical Substances
TWA	Time-Weighted Average
STEL	Short term Exposure Limit
HSNO	Hazardous Substances and New Organisms Act 1996
GHS	Globally Harmonised System of Classification and Labelling of Chemicals

SAFETY DATA SHEET

SECTION 16 – ANY OTHER RELEVANT INFORMATION Continued

LITERATURE REFERENCES AND SOURCES OF DATA:

OECD Guidelines for Testing of Chemicals
Annex I: OECD Test Guidelines for Studies Included in SIDS
Manual for the Assessment of Chemicals Chapter 2 Data Gathering
International Toxicity Testing Guidelines
Hazardous Substance Information System - Guidance Material for Hazard Classifications
Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.
Model Work Health and Safety Regulations.
Model Work Health and Safety Regulations - Transitional Principles
Workplace Exposure Standards for Airborne Contaminants
Australian Dangerous Goods Code 7th Edition
Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]
Guidance on the Classification of Hazardous Chemicals under the WHS Regulations
Assigning a Hazardous Substance to a Group Standard
User Guide to the HSNO Thresholds and Classifications
Summary User Guide to the HSNO Thresholds and Classifications of Hazardous Substances
Correlation between GHS and New Zealand HSNO Hazard Classes and Categories
HSNO Control Regulations
Record of Group Standard Assignment
Labelling of Hazardous Substances Hazard and Precautionary Information
Thresholds and Classifications Under the Hazardous Substances and New Organisms Act 1996
Workplace Exposure Standards and Biological Exposure Indices