



Material Safety Data Sheet

IDENTIFICATION OF THE MATERIAL AND SUPPLIER:

Product Name: **Fortron POWER STEERING FLUSH SERVICE KIT**

Other Names: **POWER STEERING FLUSH SERVICE KIT
FPSFKIT – Service Kit
1 x FPSF – Power Steering Flush
1 x FAPWS – Auto Trans & Power Steering Concentrate (Wide Spectrum)**

Recommended Use: This service kit contains two products that will supply the following benefits:-

Power Steering Flush – A low viscosity inhibited flushing product designed to provide maximum solvency to power steering fluids prior to removal of the old fluid and replacement with new fluid.

Automatic Transmission & Power Steering Concentrate (Wide Spectrum) – This treatment helps extend the life of bearings, gears, seals and bands and protects against shock loading, wear, gumming and corrosion. Safe and suitable for most Power Steering systems.

Supplier: Fortron Automotive Treatments Pty Ltd
14-18 Sangiorgio Court, Osborne Park
Perth, Western Australia 6017
ACN 008 872 197 ABN 12 008 872 197
Phone: (618) 9202 7800 (Monday – Friday 8.00am – 5.00pm)
Fax: (618) 9202 7851
www.fortron.com.au

Emergency Telephone No: 0433 088 498

Power Steering Flush

1. HAZARDS IDENTIFICATION:

CLASSIFIED AS HAZARDOUS ACCORDING TO CRITERIA OF NOHSC.

Hazard Identification:	Xn Xi	Harmful Irritant
Risk Phrase:	R20 R21 R36/38	Harmful by inhalation. Harmful in contact with skin. Irritating to eyes and skin.
Safety Phrase:	S2 S24/25 S26 S36/37/38	Keep out of the reach of children Avoid contact with skin and eyes In case of contact with eyes, rinse immediately with plenty of water and seek medical advice Wear suitable protective clothing, gloves and eye/face protection.



2. COMPOSITION/INFORMATION ON INGREDIENTS:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Proportion % w/w</u>
Butane Copolymer	9003-27-4	< 10%
Poly Iso Butane	9003-29-6	< 50%
H Refined Mineral Oil	64742	< 30%
2-Butoxy Ethanol	111-76-2	< 20%
2-Propanol	200-661-7	< 10%

3. FIRST AID MEASURES:

Swallowed:	If swallowed immediately rinse mouth with water. DO NOT induce vomiting. Give plenty of water to drink. Seek immediate medical advice. For advice, contact a Poisons Information Centre. Phone Australia 13 1126; New Zealand 0800 764 766; or a doctor (at once).
Eye:	If contact with the eye(s) occurs, immediately hold the eye open and wash continuously for at least 15 minutes with fresh running water. Ensure irrigation under eyelids by occasionally lifting the upper and lower lids. If symptoms persist seek medical advice.
Skin:	Wash contaminated skin with soap and water. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.
Inhaled:	Remove victim from exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patients breathing is difficult and develops a bluish discolouration of the skin which suggests a lack of oxygen in the blood, ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.
First Aid Facilities:	Eye wash facilities and normal wash room facilities.
Advice to Doctor:	Treat symptomatically.

4. FIRE FIGHTING MEASURES:

Combustible Liquid.	
Extinguishing Media:	In case of fire, use water fog (or if unavailable water spray), foam, dry agent (carbon dioxide chemical powder).
Unusual Fire & Explosion Hazards:	On burning will emit toxic fumes, including those of oxides of carbon.
Fire Fighting Precautions:	Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion.
Hazchem Code:	Not applicable



5. ACCIDENTAL RELEASE MEASURES:

Emergency Procedures: Slippery when wet. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing of vapours. Work up wind or increase ventilation.

Methods and Materials for Containment and Clean Up:-

Small Spills/Large Spills: Contain using sand or soil – prevent run off into drains and waterways. Use absorbent (soil, sand, vermiculite or other inert material). Collect and seal in properly labelled containers for disposal. Wash area down with excess water.

Dispose off according to State Land Management Authority regulations.

6. HANDLING AND STORAGE:

Precautions for Safe Handling:

Avoid skin and eye contact and breathing in vapours, mists or aerosols. Wear overalls, safety shoes, goggles and neoprene, PVC or natural rubber gloves. If inhalation risk exists wear organic vapour or organic vapour/particulate respirator meeting the requirements of AS1715 and AS1716. Always wash hands before smoking, eating, drinking or using the toilet.

Conditions for Safe Storage: Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials as described in Section 10. Keep containers closed when not in use – check regularly for leaks.

7. EXPOSURE CONTROLS/PERSONAL PROTECTION:

National Exposure Standards:

	TWA 8hr (20 ppm)	STEL 15min (50ppm)
2-Butoxy Ethanol (mineral oil mist)	96.9 mg/m ³	242mg/m ³

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).

Time-weighted average (TWA) is defined as the concentration of that substance over an eight-hour working shift, and apply to an eight-hour day, for a five-day working week over an entire working lifetime. Short Term Exposure Limits (STEL) and Peak Limitations may also be specified for short periods of exposure such as 15 minutes.



7. EXPOSURE CONTROLS/PERSONAL PROTECTION: continued

Engineering Controls: Ensure ventilation is adequate to maintain air concentration below Exposure Standards. If inhalation risk exists use with local exhaust ventilation or while wearing organic vapour respirator. Vapour heavier than air – prevent concentration in hollow or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.

Personal Protective Equipment: Avoid prolonged or repeated skin contact. Wear overalls, safety shoes, goggles and neoprene, PVC or natural rubber gloves. If inhalation risk exists wear organic vapour or organic vapour/particulate respirator meeting the requirements of AS1715 and AS1716. Always wash hands before smoking, eating, drinking or using the toilet.

Hygiene Recommendations: Keep an eye wash fountain available.

8. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Liquid, light straw colour
Odour:	Mild. Product specific.
pH:	Not determined
Vapour Pressure:	0.89 hPa
Vapour Density:	Not determined
Boiling Point:	Not determined
Melting Point:	Not determined
Solubility in Water:	Miscible with water
Specific Gravity:	0.6995 – 0.902 @ 20°C
Flashpoint:	140 °C
Flammability Limits:	LEL Not assigned UEL Not assigned

9. STABILITY AND REACTIVITY:

Chemical Stability: Combustible liquid.

Conditions to Avoid: Avoid heat.

Incompatible Materials: Reacts with strong oxidising agents.

Hazardous Reactions: On burning will emit toxic fumes, including those of oxides of carbon.



10. TOXICOLOGICAL INFORMATION:

HUMAN HEALTH HAZARDS - ACUTE

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Swallowed:	Swallowing can result in nausea, vomiting and central nervous system depression. If the victim is showing signs of central system depression (like those of drunkenness) there is greater likelihood of the patient breathing in vomit and causing damage to the lungs.
Eye:	An eye irritant.
Skin:	Contact with skin will result in irritation. Will have degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant or dermatitis. Can be absorbed through the skin. Effects can include those described for "SWALLOWED".
Inhaled:	Breathing in vapour may produce respiratory irritation. Breathing in high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgement and if exposure is prolonged, unconsciousness.

11. ECOLOGICAL INFORMATION:

Ecotoxicity:	Avoid contaminating water ways.
Persistence and Degradability:	None established for this product.
Mobility:	None established for this product.

12. DISPOSAL CONSIDERATIONS:

Disposal Methods and Containers:	Dispose according to State Land Management Authority regulations. Small Spills/Large Spills: Contain using sand or soil – prevent run off into drains and waterways. Use absorbent (soil, sand, vermiculite or other inert material). Collect and seal in properly labelled containers for disposal. Wash area down with excess water. Dispose off according to State Land Management Authority regulations.
Special Precautions for Landfill or Incineration:	No special requirements.



13. TRANSPORT INFORMATION:

Not classified as a Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

UN Number: None Allocated

UN Proper Shipping Name:

Class and Subsidiary Risk: None Allocated

Packaging Group: None Allocated

Special Precaution for User: None Allocated

Hazchem Code: None Allocated

Poisons Schedule: S6

Not regulated for transport.

14. REGULATORY INFORMATION:

Hazardous according to criteria of NOHSC.

Hazard Identification: Xn Harmful
Xi Irritant

Risk Phrase: R20 Harmful by inhalation.
R21 Harmful in contact with skin.
R36/38 Irritating to eyes and skin.

Safety Phrase: S2 Keep out of the reach of children
S24/25 Avoid contact with skin and eyes
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S36/37/38 Wear suitable protective clothing, gloves and eye/face protection.

Auto Trans & Power Steering Concentrate (Wide Spectrum)

1. HAZARDS IDENTIFICATION:

HAZARDOUS CLASSIFICATION	The product is classified as non-hazardous according to the criteria of Safe Work Australia (formerly the Australian Safety and Compensation Council (ASCC), formerly NOHSC). This product is a non-dangerous good according to the Australian Dangerous Goods Code.
RISK PHRASE(S):	
IRRITANCY OF PRODUCT:	Not classified as an irritant.
SENSITISATION OF PRODUCT:	May cause sensitisation by skin contact.
TERATOGENICITY:	No teratogenic effects known.
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.

2. COMPOSITION/INFORMATION ON INGREDIENTS:

CHEMICAL CHARACTERISTICS:	Liquid		
<u>INGREDIENTS:-</u>			
CHEMICAL ENTITY:	CAS No.	PROPORTION	
Hydro Refined Mineral Oil	None Allocated	≤ 30 – 50%	
Methacrylate polymer	None Allocated	≤ 5 – 18%	
Chemical Dispersant	N/A	≤ 4 – 16%	
Alkane Amine	None Allocated	≤ 0.4 max	
Phenolic Alkane	Proprietary	≤ 0.2 max	
Ingredients determined not to be hazardous	Mixture	Up to 100%	

3. FIRST AID MEASURES:

HEALTH EFFECTS

SWALLOWED:	If a large quantity is ingested seek immediate medical attention. Give water to drink. DO NOT induce vomiting. If vomiting occurs get immediate medical attention due to aspiration into lungs risk.
EYE:	Immediately irrigate with copious amounts of water for at least 15 minutes. Eyelids to be held open. In all cases of eye contamination it is a sensible precaution to seek medical advice.
SKIN:	Remove contaminated clothing and wash skin thoroughly with plenty of soap and water. 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.
ADVICE TO DOCTOR:	Treat symptomatically.
OTHER INFORMATION:	Keep water and mild soap near work site.

4. 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 FROM COMBUSTION PRODUCTS:	Combustion products may include: oxides of carbon, nitrogen and sulphur, a complex mixture of airborne unidentified organic and inorganic solid and liquid particulates.
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 foam, carbon dioxide or dry chemical.
PROTECTIVE MEASURES:	Fire fighters should wear self-contained breathing apparatus if risk of exposure to products of combustion.
REACTIVITY:	May react with strong oxidising agents.

5. 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. Scrub contaminated surfaces with detergent solution. Retain washings as contaminated waste. 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. Scrub contaminated area with detergent and water using a stiff brush. Pick up liquid with additional absorbent material and place in a sound labelled disposable container. Prevent contamination of groundwater or surface water.

6. 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:	Keep containers closed at all times. Store in a cool place out of direct sunlight. Store away from oxidising agents. Check containers regularly for leaks.
CORROSIVENESS:	Not corrosive.
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.

7. EXPOSURE CONTROLS/PERSONAL PROTECTION:

NATIONAL EXPOSURE STANDARDS:	No exposure standard has been established for this product. NOHSC Exposure Standard: Oil mists – time weighted average (TWA) 5 mg/m ³ is recommended.
OTHER EXPOSURE INFORMATION:	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).
ENGINEERING CONTROLS:	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.
RESPIRATORY PROTECTION:	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 are worn. Air supplied respirators should always be worn when the airborne concentration of the contaminant or the oxygen content of the air is unknown
EYE PROTECTION:	Safety glasses, goggles or face shield as appropriate.
HAND PROTECTION:	PVC gloves.
FOOTWEAR:	Enclosed footwear.
BODY PROTECTION:	Overalls or similar protective apparel.
HYGIENE MEASURES:	Always wash hands before eating, drinking, smoking or using the toilet. If contamination occurs, change clothing. Launder contaminated clothing before reuse. Discard internally contaminated gloves.



SPECIAL PROTECTIVE MEASURES: The product will not burn unless preheated. Isolate from sources of heat, naked flames or sparks.

8. PHYSICAL AND CHEMICAL PROPERTIES:

FORM:	Liquid
APPEARANCE:	Clear and bright liquid.
COLOUR:	Red / Brown
ODOUR:	Mild Petroleum
MELTING POINT:	Less than 0°C
BOILING POINT:	Greater than 300°C
DENSITY @ 15°C (kg/L):	0.851 typical
SPECIFIC GRAVITY:	900 @ 15.6 / 15.6°C
FLASHPOINT (ASTM D-93), Closed Cup:	130°C
FLAMMABILITY LIMITS -LOWER:	Approximately 1.5%
FLAMMABILITY LIMITS -UPPER:	Approximately 6.0%
FLAMMABILITY:	Combustible Liquid C2 according to AS 1940.
SOLUBILITY IN WATER:	Not soluble.
SOLUBILITY IN ORGANIC SOLVENTS:	Soluble in petroleum solvents.
VAPOUR PRESSURE:	Less than 0.1 kPa
VAPOUR DENSITY (Air = 1):	Greater than 2.0
VISCOSITY @ 40 °C(mm ² /s):	Approximately 34
EVAPORATION RATE:	Less than 1 (n-butyl acetate = 1)
AUTO-IGNITION TEMPERATURE:	Greater than 250°C
EXPLOSION PROPERTIES:	Not considered an explosion risk under normal conditions of use.
OTHER INFORMATION:	These physical data and other properties do not constitute a specification.

9. STABILITY AND REACTIVITY:

CHEMICAL STABILITY:	Stable under normal conditions of use.
CONDITIONS TO AVOID:	Heat, direct sunlight, open flames or other sources of ignition.
INCOMPATIBLE MATERIALS:	Strong oxidising agents.
HAZARDOUS REACTIONS:	Will react with strong oxidising agents.
HAZARDOUS POLYMERISATION:	Will not occur.

10. TOXICOLOGICAL INFORMATION:

TOXICOLOGY INFORMATION:	This product contains petroleum base oils, which may be refined by various processes including severe solvent extraction, hydro cracking and hydro treating. These oils have not been listed in the U.S. National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as carcinogenic or probably carcinogenic to humans. Oral LD50 ({{UDO1}}):{{UDO2}} mg/kg.
INHALATION:	Inhalation of mists or aerosols can produce respiratory irritation.
INGESTION:	May cause mild irritation of the mouth, throat and stomach with nausea and mild diarrhoea. Large amounts can cause vomiting which can lead to aspiration of vomited material into the lungs.
SKIN:	Will have a de-fatting effect on the skin. Contact with skin may result in irritation and sensitisation.
EYE:	May cause watering of eyes.
REPRODUCTIVE TOXICITY:	Product is not a known to have damaging reproductive effects.
CHRONIC EFFECTS:	Prolonged or repeated exposure may result in irritation, with the possibility of dermatitis.
MUTAGENICITY:	Mutagenic effects not known.
CARCINOGENICITY:	Product is not a known carcinogen.

11. ECOLOGICAL INFORMATION:

ECOLOGICAL INFORMATION:	Leaching and penetration through soils is generally regarded as resulting in long-term persistence. Fresh or used product may be harmful to aquatic life. Do not allow material to enter drains or watercourses.
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12. DISPOSAL CONSIDERATIONS:

DISPOSAL CONSIDERATIONS:	Dispose of according to federal, E.P.A. and state regulations.
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13. TRANSPORT INFORMATION:

TRANSPORT INFORMATION:	Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
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14. REGULATORY INFORMATION:

POISON SCHEDULE:	Not scheduled.
PACKING & LABELLING:	No special packaging or labelling requirements.
AUSTRALIAN INVENTORY STATUS:	All components are listed or exempted.

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15. FURTHER INFORMATION:

LITERATURE REFERENCES:

- * NOHSC:2011 National Code of Practice for the preparation of Material Safety Data Sheets.
- * 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.

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