



**MANUFACTURERS AND SUPPLIERS
OF HYDRAULIC COMPONENTS**

MORCHAIN E-RANGE *(includes 'X' grade)*

High Performance Regenerated Chain Saw Lubricants

Morchain E and **Morchain E 'X'** regenerated lubricants are available in a range of viscosity grades to suit varied applications requiring a "low fling" lubricant.

Morchain E lubricants contain extreme pressure and anti-wear additives together with high molecular weight polymers to resist breakdown and displacement of the lubricant even under high loads.

Morchain E lubricants are recommended for chainsaw cutter bars, open roller chain lubrication, roller bearings and are also suitable for general machine lubrication where non drip characteristics are required.

Morchain E 'X' grades in the range offer exceptional adhesion performance to cutter bar surfaces and perform as long life grades with outstanding lubrication and 'anti fling' properties. These specially developed grades are only available in a limited viscosity range.

Features & Benefits

- 'X' grades provide exceptional long life performance
- Formulated on high quality mineral oil
- Outstanding anti-wear/EP properties
- Protects against rust and corrosion
- Formulated on high quality mineral oil
- Resistant to chain fly off

Typical Data

Morchain E	E68	E150	E220	E220X	
ISO Grade	68	150	220	220	
Viscosity @40°C	69.2	148.9	218.1	218.1	mm ² /s
Flashpoint (PMOC)	200	200	200	200	°C (min)
Pourpoint	-8	-8	-8	-8	°C (max)
Specific Gravity @20°C	0.88	0.89	0.89	0.89	

Morchain E 'X' grade contains boosted additives to extend the life of the lubricant under normal operating conditions.

Morchain E oils are typically used as supplied. **Morchain E** oils should always be stored indoors and protected from extremes of temperature.

www.flowfitonline.com

Harrier Fluid Power Ltd T/A Flowfit, Parys Road, Ludlow Business Park, Ludlow, Shropshire SY8 1XY
Telephone: +44 (0)1584 876 033 Fax: +44 (0)1584 876 044
Email: sales@flowfitonline.com

SAFETY DATA SHEET
MORCHAIN / MORCHAIN X RANGE

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Revision No: 2

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: MORCHAIN / MORCHAIN X RANGE
REACH registered name: N/A
REACH registered number(s): N/A
Product code: LUCH / LUCHX

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

Use of substance / mixture: Chainsaw lubricant

1.3. Details of the supplier of the safety data sheet

Company name: Harrier Fluid Power t/a Flowfit
Parys Road
Ludlow Business Park
Ludlow
Shropshire
United Kingdom

Tel: +44 (0) 1584 876 033
Fax: +44 (0) 1584 876 044
Email: sales@flowfitonline.com

1.4. Emergency telephone number

Emergency tel: +44 (0) 1584 876 033

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: This product has no classification under CLP.

2.2. Label elements

Label elements: This product has no label elements.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

[cont...]

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Hazardous ingredients:

BASEOIL - UNSPECIFIED - LUBRICATING OILS (PETROLEUM), BASE OILS, PARAFFINIC

EINECS	CAS	PBT / WEL	CLP Classification	Percent
297-474-6	93572-43-1	-	-	>90%

Contains: Highly refined mineral oil - DMSO extract <3% (w/w) according to IP346

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes.

Ingestion: Wash out mouth with water.

Inhalation: Not thought to be a concern. Albeit the user must carry out a risk assesment to determine the level of "mist" in the atmosphere to be within guide limits however remove the affected employee(s) from exposure ensuring ones own safety whilst doing so

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

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: There may be irritation of the throat.

Inhalation: No symptoms.

4.3. Indication of any immediate medical attention and special treatment needed

Immediate / special treatment: Not applicable.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. Turn leaking containers leak-side up to prevent the escape of liquid.

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6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS. Refer to section 13 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Empty containers retain product residue and can be hazardous. Avoid direct contact with the substance. Avoid the formation or spread of mists in the air.
Ensure there is sufficient ventilation of the area. Do not handle in a confined space.
Avoid release to the environment.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): Chain Lubricant

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: No data available.

DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids. Ensure all engineering measures mentioned in section 7 of SDS are in place.

Respiratory protection: Respiratory protection not required.

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Environmental: The floor of the storage room must be impermeable to prevent the escape of liquids. Ensure all engineering measures mentioned in section 7 of SDS are in place. Prevent from entering in public sewers or the immediate environment.

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Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Oil
Colour: Amber
Odour: Barely perceptible odour
Evaporation rate: Negligible
Oxidising: Non-oxidising (by EC criteria)
Solubility in water: Insoluble
Also soluble in: Most organic solvents.
Viscosity: Oily
Kinematic viscosity: See PDS
Viscosity test method: Kinematic viscosity in 10⁻⁶ m²/s at 40°C (ISO 3104/3105)
Boiling point/range°C: >200
Melting point/range°C: No data available.
Flammability limits %: **lower:** No data available. **upper:** No data available.
Flash point°C: >180
Part.coeff. n-octanol/water: No data available.
Autoflammability°C: No data available.
Vapour pressure: No data available.
Relative density: See PDS
pH: No data available.
VOC g/l: No data available.

9.2. Other information

Other information: Please refer to Product Data Sheet (PDS) for grade specific typical properties.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

10.4. Conditions to avoid

Conditions to avoid: Extremes of Temperature

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

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Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values: No data available.

Symptoms / routes of exposure

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: There may be irritation of the throat.

Inhalation: No symptoms.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: Not biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Recovery operations: Oil re-refining or other reuses of oil.

Waste code number: 13 02 05

Disposal of packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

Transport class: This product does not require a classification for transport.

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Section 15: Regulatory information

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

Specific regulations: Product is not subject to authorisation under REACH.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.