SAFETY DATA SHEET
Liquimatic CH-5

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name	Liquimatic CH-5
Internal Id	10513
REACH Registration number	n/a Mixture

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

Identified uses	Transmission fluid

1.3. Details of the supplier of the safety data sheet

Supplier	Morris Lubricants Castle Foregate Shrewsbury SY1 2EL Opening Hours 08.45 - 17.00 GMT T: (+44)(0)1743 232200 F: (+44)(0)1743 353584 sds@morris-lubricants.co.uk

1.4. Emergency telephone number

+44(0)1743 232200 (08.45 to 17.00 hrs UK time only)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1999/45/EEC)	Not classified.

2.2. Label elements

Risk Phrases		
	NC	Not classified.
Safety Phrases		
	P13	Safety data sheet available for professional user on request.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

3-(decyloxy)tetrahydrothiophene 1,1-dioxide	1-5%
CAS-No.: EC No.: 242-556-9	
Classification (EC 1272/2008) Aquatic Chronic 2 - H411	Classification (67/548/EEC) N;R51/53.

Diphenylamine	< 1%
CAS-No.: EC No.: 204-539-4	

Classification (EC 1272/2008)	Classification (67/548/EEC)
Acute Tox. 3 - H301	T;R23/24/25.
Acute Tox. 3 - H311	N;R50/53.
Acute Tox. 3 - H331	R33.
Eye Irrit. 2 - H319	
STOT RE 2 - H373	
STOT RE 1 - H372	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	

Lubricating oil (petroleum) C20-C50,hydrotreated,neutral oil- based		60-100%
CAS-No.: 72623-87-1	EC No.: 276-738-4	

Classification (EC 1272/2008)	Classification (67/548/EEC)
Not classified.	Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

REACH Registration number n/a Mixture

Ingredient notes

A petroleum product. DMSO extract < 3 % weight (IP 346)

Composition Comments

The data shown are in accordance with the latest EC Directives.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

Get medical attention if any discomfort continues.

Inhalation

In case of inhalation of spray mist: Move person into fresh air and keep at rest. Get medical attention if any discomfort continues.

Ingestion

Get medical attention if any discomfort continues. Do not induce vomiting.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water.

Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention promptly if symptoms occur after washing.

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

General information

If aspiration into the lungs is suspected, eg when vomitting, admit to hospital immediately.

Inhalation.

Upper respiratory irritation.

Ingestion

May cause discomfort if swallowed. The product contains mineral oil, which if aspirated into the lungs through vomitting after ingestion, may result in chemical pneumonia.

Skin contact

Prolonged contact may cause redness, irritation and dry skin.

Eye contact

Irritation of eyes and mucous membranes.

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

Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire, toxic gases (CO, CO2, NOx) may be formed. Fire creates: Other unidentified organic and inorganic gases and compounds, some of which may be toxic.

Unusual Fire & Explosion Hazards

Heat from fire could result in drums bursting

5.3. Advice for firefighters

Special Fire Fighting Procedures

Keep run-off water out of sewers and water sources. Dike for water control.

Protective equipment for fire-fighters

Self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

For personal protection, see section 8. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

Contain spillage with sand or earth. Do not allow to enter drains, sewers or watercourses. The product is insoluble in water and will spread on the water surface.

6.3. Methods and material for containment and cleaning up

Contain spillage with sand or earth. Use sealed containers for reclamation or dispose of at a licenced hazardous waste collection point. Avoid contact with water. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body. In case of spillage on water prevent the spread by use of suitable barrier equipment

6.4. Reference to other sections

For personal protection, see section 8. See section 11 for additional information on health hazards. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Always remove oil with soap and water or skin cleaning agent, never use organic solvents. Do not use oil-contaminated clothing or shoes, and do not put rags moistened with oil into pockets.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place.

Storage Class

Miscellaneous hazardous material storage.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
Diphenylamine	WEL		10 mg/m3		20 mg/m3	
Lubricating oil (petroleum) C20-C50,hydrotreated,neutral oil- based	ACGIH		5 mg/m3			

ACGIH = American Conference of Governmental Industrial Hygienists.
WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment

Process conditions

Use engineering controls to reduce air contamination to permissible exposure level.

Engineering measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory equipment

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.

Hand protection

The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection

If risk of splashing, wear safety goggles or face shield.

Other Protection

Use barrier creams to prevent skin contact.

Hygiene measures

Wash promptly with soap & water if skin becomes contaminated.

Thermal hazards

Not anticipated under normal conditions of use. The product is combustible if heated excessively and an ignition source is applied.

Environmental Exposure Controls

Do not allow product to contaminate land.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Coloured liquid.
Colour	Red.
Odour	Characteristic. Oil smell.
Solubility	Insoluble in water Soluble in: Organic solvents.
Initial boiling point and boiling range	>320
Melting point (°C)	<-40
Relative density	0.856 15
Vapour density (air=1)	>1
Vapour pressure	<0.1 kPa @ 20C
Viscosity	35 cSt 40
Flash point	>160 PM Closed cup.
Auto Ignition Temperature (°C)	Not determined

Flammability Limit - Lower(%)

Not known.

Flammability Limit - Upper(%)

Not known.

Partition Coefficient
(N-Octanol/Water)

Not determined.

Explosive properties

This product is not considered explosive.

Other Flammability

Product is not flammable but on excessive heating may become combustible.

Material is considered non-oxidizing.

9.2. Other information

Volatility Description	Not considered volatile. Vapours may be emitted on excessive heating.
	The product is a complex mixture, the majority of which would not be classed as a VOC. However it cannot be discounted that trace or low levels of VOC's may be present.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Unlikely to occur under normal conditions of use.

Hazardous Polymerisation

Unlikely to occur.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials To Avoid

Strong oxidising substances.

10.6. Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:

Acute Toxicity (Oral LD50)

> 2000 mg/kg Rat

Data is based on information on components and knowledge and experience of this and similar product types.

Acute Toxicity (Dermal LD50)

> 2000 mg/kg Rabbit

The product is not expected to be toxic via dermal exposure.

Acute Toxicity (Inhalation LC50)

Not determined.

The product is unlikely to present any significant inhalation hazard at ambient temperatures and under normal conditions of use.

Skin Corrosion/Irritation:

The classification criteria are not met. May cause mild skin irritation. Prolonged or repeated skin contact eg. from clothing wet with lubricant may cause dermatitis. Symptoms may include redness, edema, drying, and cracking skin.
Based on available data the classification criteria are not met.

Serious eye damage/irritation:

Based on available data the classification criteria are not met.

Respiratory or skin sensitisation:

No evidence to suggest the product will be a respiratory sensitiser. Repeated exposure to oil mists may cause respiratory damage.
Not expected to be a skin sensitizer based on information on components.

Reproductive Toxicity:

No data available to suggest the product will cause reproductive toxicity.

Aspiration hazard:

Viscosity

Kinematic viscosity > 20.5 mm2/s.

Product contains mineral oil and therefore poses an aspiration hazard.

General information

This product has low toxicity. Only large volumes may have adverse impact on human health.

Inhalation

Unlikely to be hazardous by inhalation because of the low vapour pressure of the substance at ambient temperature.

Ingestion

No harmful effects expected in amounts likely to be ingested by accident.

Skin contact

Skin irritation is not anticipated when used normally. Repeated exposure may cause skin dryness or cracking.

Eye contact

May cause temporary eye irritation.

Specific effects

Prolonged or repeated contact with used oil may cause serious skin diseases, such as dermatitis and skin cancer.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment. This component is present at less than 0.1%.

12.1. Toxicity

Acute Fish Toxicity

No data available.

12.2. Persistence and degradability

Degradability

The product is not readily biodegradable. The product contains mineral oil which has limited biodegradability in CEC test methods but will biodegrade slowly in aerobic water and sediments and is considered ultimately biodegradable.
The product is based on highly refined mineral oils that are considered stable to hydrolysis.

Not determined.

Biological Oxygen Demand

Not determined.

Chemical Oxygen Demand

Not determined.

12.3. Bioaccumulative potential

Bioaccumulative potential

Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

Bioaccumulation factor

Not known.

Partition coefficient

Not determined.

12.4. Mobility in soil

Mobility:

The product is non-volatile. The product is insoluble in water and will spread on the water surface.

Henry's Law Constant

Not determined.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

General — The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

Uk Regulatory References

Health and Safety at Work Act 1974.

Environmental Listing

The Pollution Prevention and Control Act 1999. Special Waste regulations 1996. Control of Pollution (Oil Storage) (England) Regulations 2001

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Approved Code Of Practice

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Dangerous Preparations Directive 1999/45/EC. Dangerous Substance Directive 67/548/EEC. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

National Regulations

Control of Substances Hazardous to Health Regulations 2002 (as amended) Workplace Exposure Limits 2005 (EH40) Health and Safety at Work Act (As Amended) 1974

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision Date	18/12/2012
Revision	2
Supersedes date	06/06/2012

Risk Phrases In Full

R33	Danger of cumulative effects.
NC	Not classified.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard Statements In Full

H372	Causes damage to organs <<Organs>> through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H373	May cause damage to organs <<Organs>> through prolonged or repeated exposure.
H331	Toxic if inhaled.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H411	Toxic to aquatic life with long lasting effects.
H410	Very toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.