



SAFETY DATA SHEET
Sovereign 460 Straight Steam Cylinder Oil

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

1.1. Product identifier

Product name Sovereign 460 Straight Steam Cylinder Oil
Internal Id 11022
REACH Registration number n/a Mixture

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

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
Safety Phrases

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

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Alcohols C8-16 reaction products with phosphorus oxide	< 1%
CAS-No.: 111174-59-5	EC No.:
Classification (EC 1272/2008) Skin Corr. 1B - H314 Aquatic Chronic 3 - H412	Classification (67/548/EEC) C;R34. R52/53.

Sovereign 460 Straight Steam Cylinder Oil

Benzenamine,N-phenyl-, reaction products with 2,4,4-triethylpentane	< 1%
CAS-No.: 68411-46-1	EC No.: 270-128-1
Classification (EC 1272/2008) Aquatic Chronic 3 - H412	Classification (67/548/EEC) R52/53.
Diphenylamine	< 1%
CAS-No.: 122-39-4	EC No.: 204-539-4
Classification (EC 1272/2008) Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 2 - H330 STOT RE 2 - H373 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC) T;R23/24/25. N;R50/53. R33.
Highly refined mineral oil	30-60%
CAS-No.: 64742-65-0	EC No.: Registration Number: 01-2119471299-27
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Not classified.
Isopropyl oleate	1-5%
CAS-No.: 112-11-8	EC No.:
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Not classified.
Residual oils (petroleum), hydrotreated	60-100%
CAS-No.:	EC No.: Registration Number: 01-2119480472-38
A petroleum product. DMSO extract < 3 % weight (IP 346)	
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Not classified.
Triarylphosphate isopropylated	< 1%
CAS-No.: 68937-41-7	EC No.: 273-066-3
Classification (EC 1272/2008) Repr. 2 - H361fd STOT RE 2 - H373 Aquatic Chronic 4 - H413	Classification (67/548/EEC) Xn;R48/22. Repr. Cat. 3;R62,R63. R53.

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.

Sovereign 460 Straight Steam Cylinder Oil

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 vomiting, 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 vomiting 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, NO_x) may be formed. Fire may also create other unidentified organic gases 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

Sovereign 460 Straight Steam Cylinder Oil

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
Highly refined mineral oil	ACGIH		5 mg/m ³		10 mg/m ³	
Isopropyl oleate	OES		5 mg/m ³		10 mg/m ³	
Residual oils (petroleum), hydrotreated	ACGIH		5 mg/m ³		10 mg/m ³	

ACGIH = American Conference of Governmental Industrial Hygienists.

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.

Sovereign 460 Straight Steam Cylinder Oil

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Amber. to Brown.
Odour	Characteristic. Oil smell.
Solubility	Insoluble in water Soluble in: Organic solvents.
Initial boiling point and boiling range (°C)	>320
Melting point (°C)	<-10
Relative density	0.902 15
Vapour density (air=1)	>1
Vapour pressure	<0.1 kPa @ 20C
Viscosity	460 cSt 40
Flash point (°C)	>215 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

No specific 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

Sovereign 460 Straight Steam Cylinder Oil

Acute toxicity:

Acute Toxicity (Oral LD50)

> mg/kg Rat 2000

Not expected to be highly toxic based on information of ingredients.

Acute Toxicity (Dermal LD50)

> 2000 mg/kg Rabbit

Not expected to be highly toxic based on information of ingredients.

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.

Serious eye damage/irritation:

May cause mild, short lasting discomfort to eyes.

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.

The product viscosity is greater than the upper limit assigned for classification. The product contains mineral oil. If aspirated into the lungs e.g. through vomiting after ingestion admit to hospital immediately.

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

12.1. Toxicity

12.2. Persistence and degradability

Degradability

The product is not readily biodegradable.

The product is based on highly refined mineral oils that are considered stable to hydrolysis.

The product is not considered readily biodegradable, albeit the major constituents are expected to ultimately biodegrade.

Biological Oxygen Demand

Not determined.

Sovereign 460 Straight Steam Cylinder Oil

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

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

14.6. Special precautions for user

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

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.

Sovereign 460 Straight Steam Cylinder Oil

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. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

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 13/12/2012

Revision 4

Supersedes date 20/05/2009

Risk Phrases In Full

R34 Causes burns.
R33 Danger of cumulative effects.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R53 May cause long-term adverse effects in the aquatic environment.
NC Not classified.
R63 Possible risk of harm to the unborn child.
R62 Possible risk of impaired fertility.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard Statements In Full

H314 Causes severe skin burns and eye damage.
H330 Fatal if inhaled.
H412 Harmful to aquatic life with long lasting effects.
H373 May cause damage to organs <<Organs>> through prolonged or repeated exposure.
H413 May cause long lasting harmful effects to aquatic life.
H361fd Suspected of damaging fertility or the unborn child.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H410 Very toxic to aquatic life with long lasting effects.
H400 Very toxic to aquatic life.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.