



SAFETY DATA SHEET

Issuing Date: 10-22-2014

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Version 1

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

1.1.

Product identifier

Product Code(s): 05046125-M
Product Name HOUGHTO-DRIVE HM 46
Product Registration number
Denmark -
Norway -
Sweden -
EC # Not Applicable
Pure substance/preparation Contains Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)

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

Recommended use Hydraulic oil
Uses advised against Any other purpose.

1.3. Details of the supplier of the safety data sheet

Manufacturer, Importer, Supplier

Houghton plc
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Trafford Park
Manchester
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Houghton Kimya San. A.Ş
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İstanbul
Türkiye
Phone Number: +90 216 325 15 15

1.4. Emergency telephone number

3E Company: (+)1 760 476 3961 (Code 333938)

Austria	Notfall-Telefonnummer +43 (0) 1 406 4343
Bulgaria	Телефон за спешни случаи +359 2 9154 409
Switzerland	145; +41 (0) 44 254 51 51
Czech Republic	Telefonní číslo pro naléhavé situace +420 224 919 293
Denmark	Ring til Giftlinjen på +45 82 12 12 12
Finland	Hätäpuhelinnumero +358 09 471 977
France	Numéro d'appel d'urgence +33 (0)1 45 42 5959
Hungary	Díjmentesen hívható zöld szám +36 80 20 11 99
Ireland	Emergency telephone number +353 01 809 2166
Netherlands	Telefoonnummer voor +31 30 274 88 88
Norway	Nødnummer +47 22 59 13 00
Poland	112
Portugal	Número de telefone de emergência +351 808 250 143
Romania	Număr de telefon care poate fi apelat în caz de urgență +021 318 36 06 (08:00-15:00)
Spain	Número de teléfono de emergencia +34 91 562 0420
Sweden	Telefonnummer för nödsituationer +46 08 33 12 31 (09:00-17:00)
Turkey	(+)1 760 476 3959 (Code 333938)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label Elements

Contains Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)

EUH210 - Safety data sheet available on request.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.1. Substances / 3.2. Mixtures**

This product is a mixture. Health hazard information is based on its ingredients

Chemical Name	EC-No	CAS-No	Weight %	Classification (Reg. 1272/2008)	REACH Registration Number
Highly refined base oil (Viscosity >20.5 cSt @40°C)	-	-	50% - 100%	**	-
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	-	-	25% - 50%	Asp. Tox. 1 (H304) (EUH066)	-

Additional information

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346
See Section 15 for additional information on base oils.

Full text of H- and EUH-phrases: see section 16**SECTION 4: First aid measures****4.1. Description of first-aid measures**

General advice	If symptoms persist, call a physician.
Inhalation	Move to fresh air.
Skin contact	Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.
Ingestion	Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting without medical advice.
Protection of First-aiders	Use personal protective equipment.

4.2. Most important symptoms and effects, both acute and delayed**Main Symptoms** None**4.3. Indication of immediate medical attention and special treatment needed****Notes to physician** Treat symptomatically.**SECTION 5: FIRE FIGHTING MEASURES****5.1. Extinguishing media****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment: Use water spray, fog, Carbon dioxide, foam or dry chemical, Cool containers / tanks with water spray, Use CO2, dry chemical, or foam, Water spray or fog

Extinguishing media which shall not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture**Special Hazard**

Combustible material. In the event of fire and/or explosion do not breathe fumes. Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). This material creates a fire hazard because it floats on water. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Decomposition Products

Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide

5.3. Advice for firefighters**Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Ensure adequate ventilation.

Advice for non-emergency personnel

Material can create slippery conditions.

Advice for emergency responders For personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

After cleaning, flush away traces with water.

6.4. Reference to other sections

See Section 8/12/13 for additional information.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Keep away from open flames, hot surfaces and sources of ignition.

7.2. Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition.

Recommended Shelf Life

No information available.

Incompatible Materials

Strong oxidizing agents, Strong acids, Strong bases

7.3. Specific end uses

Specific use(s) Hydraulic oil

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	European Union	United Kingdom	France	Spain
Highly refined base oil (Viscosity >20.5 cSt @40°C)				VLA-EC: 10 mg/m ³ VLA-ED: 5 mg/m ³
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)				VLA-EC: 10 mg/m ³ VLA-ED: 5 mg/m ³

Chemical Name	Austria	Switzerland	Poland	Ireland
Highly refined base oil (Viscosity >20.5 cSt @40°C)				STEL: 10 mg/m ³ TWA: 5 mg/m ³ (Mist)
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)				STEL: 10 mg/m ³ TWA: 5 mg/m ³ (Mist)

Chemical Name	Finland	Denmark	Norway	Sweden
Highly refined base oil (Viscosity >20.5 cSt @40°C)	TWA: 5mg/m ³ (Öljysumu)	TWA: 1 mg/m ³ (Olietåge)	TWA: 1 mg/m ³ (Oljetåke)	LLV: 1 mg/m ³ STV: 3 mg/m ³ (Oljedimma)
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	TWA: 5mg/m ³ (Öljysumu)	TWA: 1 mg/m ³ (Olietåge)	TWA: 1 mg/m ³ (Oljetåke)	LLV: 1 mg/m ³ STV: 3 mg/m ³ (Oljedimma)

Chemical Name	RCP OEL	Manufacturer
Distillates (petroleum), hydrotreated middle 64742-46-7	RCP: TWA 1200 mg/m ³ 143ppm	

Workers Systemic toxicity

Workers Local effects

Consumers Systemic toxicity

Consumers Local effects

Predicted No Effect Concentration (PNEC)

8.2. Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal protective equipment**Eye Protection**

Safety glasses with side-shields.

Hand Protection

Protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred.

Skin and body protection

Long sleeved clothing.

Respiratory protection

No special protective equipment required. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

Hygiene measures

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

Environmental Exposure Controls

No special environmental precautions required.

Thermal hazards

None under normal use conditions

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state @20°C	liquid	Appearance	clear amber
Odor	mineral oil	Odor Threshold	Not Applicable
Property	Values	Note	
pH	No information available		
Melting Point / Freezing Point	< 0 °C / < 32 °F		
Boiling point/boiling range	> 200 °C / > 392 °F		
Flash point	215 °C / 419 °F	ASTM D 92	
Evaporation rate	negligible		
Flammability (solid, gas)	No information available		
Flammability Limits in Air			
upper flammability limit	No information available.		
Lower flammability limit	No information available.		
Vapor pressure	No information available.		
Vapor density	No information available.		
Relative density	0.88	@15.5C	
Solubility(ies)	Insoluble in water		
Partition coefficient: n-octanol/water	Not Applicable		
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Viscosity, kinematic	46 cSt @ 40 °C	ASTM D 445	
Explosive properties	Not Applicable		
Oxidizing Properties	Not Applicable		

9.2 Other information

Viscosity, kinematic (100°C)	No information available	
Pour point	< 0 °C / < 32 °F	ASTM D 97
VOC Content	No information available	

SECTION 10: Stability and reactivity**10.1. Reactivity**

None under normal use conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal use conditions

10.4. Conditions to avoid

Heat, flames and sparks, Keep away from open flames, hot surfaces and sources of ignition

10.5. Incompatible Materials

Strong oxidizing agents, Strong acids, Strong bases

10.6. Hazardous decomposition products

Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects**Product Information - Principle Routes of Exposure**

Inhalation	None known
Eye contact	None known
Skin contact	None known
Ingestion	None known

Acute toxicity - Product Information

Product does not present an acute toxicity hazard based on known information.

Acute toxicity - Component Information

Chemical Name	LD50 Oral (Rat)	LD50 Dermal (Rat/Rabbit)	LC50 Inhalation
Highly refined base oil (Viscosity >20.5 cSt @40°C)	>2000 mg/kg	>2000 mg/kg	
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	>2000 mg/kg	>2000 mg/kg	

Skin corrosion/irritation None known.

Serious eye damage/eye irritation None known.

Sensitization

Respiratory Sensitization None known.

Skin sensitization None known.

Germ Cell Mutagenicity None known.

Carcinogenicity None known.

Reproductive toxicity None known.

Specific target organ systemic None known

toxicity (single exposure)

Specific target organ systemic toxicity (repeated exposure) None known.

Aspiration hazard None known.

SECTION 12: Ecological information**12.1. Toxicity**

No special environmental measures are necessary.

12.2. Persistence and degradability

The product is not readily biodegradable, but it can be degraded by micro-organisms, it is regarded as being inherently biodegradable.

12.3. Bioaccumulative potential**12.4. Mobility in soil**

The product is insoluble and floats on water.

12.5. Results of PBT and vPvB assessment

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects

None known

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from Residues / Unused Products Dispose of in accordance with local regulations

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Observe all label precautions until container is cleaned, reconditioned or destroyed.

Other Data According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information**14.1. UN-Number**

Not regulated

14.2. UN proper shipping name

Not regulated

14.3. Transport hazard class

Not regulated

14.4. Packing group

Not regulated

14.5. Environmental Hazards

None.

14.6. Special precautions for users

None.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

IMDG/IMO Not regulated

ADR/RID Not regulated

ICAO/IATA Not regulated

SECTION 15: Regulatory information

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

The Classification, Labeling and Packaging of Substances and Mixtures (CLP) Regulation (EC 1272/2008)
Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

Statutory Instruments: Control of Substances Hazardous to Health Regulations 2002. Chemicals (Hazard Information and Packaging) Regulations 2009.

Acts of Parliament: The Health and Safety at Work etc. Act 1974. Environment Protection Act 1990.

Regulation on classification, labeling, of hazardous chemicals (2002 changing 2005). Appendix VI to Regulation on classification, labeling etc. of hazardous chemicals (2002 changing 2010), list of hazardous substances (as amended). Guidelines for submission and declaration of hazardous waste (2009). Transport of dangerous goods: ADR, RID, IMDG and IATA. Administrative norms for pollution of the atmosphere, 2009.

Workplace exposure limits (EH40)

WGK Classification

Low hazard to water/Class 1

The highly refined base oil (Viscosity >20.5 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:

Chemical Name	CAS-No	EC-No	REACH Registration Number
Lubricating oils (petroleum), C24-50, solvent-extd., dewaxed, hydrogenated	101316-72-7	309-877-7	01-2119489969-06-xxxx
Lubricating oils (petroleum), used, noncatalytically refined	101316-73-8	309-878-2	02-2119822310-56-xxxx
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4	265-090-8	
Residual oils (petroleum), solvent-refined	64742-01-4	265-101-6	01-2119488707-21-xxxx
Extracts (petroleum), residual oil solvent	64742-10-5	265-110-5	01-2119488175-30-xxxx
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	265-155-0	01-2119467170-45-xxxx
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	265-156-6	

Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	265-157-1	01-2119484627-25-xxxx
Residual oils (petroleum), hydrotreated	64742-57-0	265-160-8	01-2119489287-22-xxxx
Lubricating oils (petroleum), hydrotreated spent	64742-58-1	265-161-3	
Residual oils (petroleum), solvent-dewaxed	64742-62-7	265-166-0	01-2119480472-38-xxxx
Distillates (petroleum), solvent-dewaxed heavy, paraffinic	64742-65-0	265-169-7	01-2119471299-27-xxxx
Paraffin oils (petroleum), catalytic dewaxed heavy	64742-70-7	265-174-4	01-2119487080-42-xxxx
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0	276-737-9	01-2119474878-16-xxxx
Lubricating oils (petroleum), C20-C50, hydrotreated neutral oil-based	72623-87-1	276-738-4	01-2119474889-13-xxxx
Lubricating oils	74869-22-0	278-012-2	
Paraffin oils	8012-95-1	232-384-2	
White mineral oil (petroleum)	8042-47-5	232-455-8	01-2119487078-27-xxxx

The highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:

Chemical Name	CAS-No	EC-No	REACH Registration Number
Distillates (petroleum), straight-run middle	64741-44-2	265-044-7	
Distillates (petroleum), heavy hydrocracked	64741-76-0	265-077-7	01-2119486951-26-xxxx
Distillates (petroleum), solvent-refined light paraffinic	64741-89-5	265-091-3	01-2119487067-30-xxxx
Distillates (petroleum), hydrotreated middle	64742-46-7	265-148-2	01-2119459347-30-xxxx
Distillates (petroleum), hydrotreated middle	64742-46-7	934-956-3	01-2119827000-58-xxxx
Distillates (petroleum), hydrotreated light	64742-47-8	265-149-8	01-2119456620-43-xxxx
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	265-156-6	01-2119480375-34-xxxx
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	265-157-1	01-2119484627-25-xxxx
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	265-158-7	01-2119487077-29-xxxx
Distillates, petroleum, solvent-dewaxed light paraffinic	64742-56-9	265-159-2	01-2119480132-48-xxxx
Distillates (petroleum), solvent-dewaxed heavy, paraffinic	64742-65-0	265-169-7	01-2119471299-27-xxxx
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0	276-737-9	01-2119474878-16-xxxx
Lubricating oils (petroleum), C20-C50, hydrotreated neutral oil-based	72623-87-1	276-738-4	01-2119474889-13-xxxx
White mineral oil (petroleum)	8042-47-5	232-455-8	01-2119487078-27-xxxx
Hydrocarbons, C14-C19, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE	920-114-2	01-2119459347-30-xxxx

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Repr.-Reproduction toxicity
 Asp. Tox. - Aspiration Toxicity
 Acute Tox. - Acute Toxicity
 Aquatic Acute - Acute Aquatic Toxicity
 Aquatic Chronic - Chronic Aquatic Toxicity
 Eye Dam. - Eye Damage
 Eye Irrit. - Eye Irritation
 Skin Corr. - Skin Corrosion
 Skin Irrit. - Skin Irritation
 Skin Sens. - Skin Sensitizer
 Resp. Sens. - Respiratory Sensitizer
 STOT SE - Specific target organ systemic toxicity (Single exposure)
 STOT RE - Specific target organ systemic toxicity (repeated exposure)
 VOC - Volatile organic compounds

Full text of H-Statements referred to under sections 2 and 3

<ul style="list-style-type: none"> • H224 - Extremely flammable liquid and vapor • H225 - Highly flammable liquid and vapor • H226 - Flammable liquid and vapor • H270 - May cause or intensify fire; oxidizer • H271 - May cause fire or explosion; strong oxidizer • H272 - May intensify fire; oxidizer • H290 - May be corrosive to metals • H300 - Fatal if swallowed • H301 - Toxic if swallowed • H302 - Harmful if swallowed • H304 - May be fatal if swallowed and enters airways • H310 - Fatal in contact with skin • H311 - Toxic in contact with skin • H312 - Harmful in contact with skin • H314 - Causes severe skin burns and eye damage • H315 - Causes skin irritation • H317 - May cause an allergic skin reaction • H318 - Causes serious eye damage • H319 - Causes serious eye irritation • H330 - Fatal if inhaled • H331 - Toxic if inhaled • H332 - Harmful if inhaled • H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled • H335 - May cause respiratory irritation • H336 - May cause drowsiness or dizziness • H340 - May cause genetic defects 	<ul style="list-style-type: none"> • H341 - Suspected of causing genetic defects • H350 - May cause cancer • H351 - Suspected of causing cancer • H360 - May damage fertility or the unborn child • H361 - Suspected of damaging fertility or the unborn child • H362 - May cause harm to breast-fed children • H370 - Causes damage to organs • H371 - May cause damage to organs • H372 - Causes damage to organs through prolonged or repeated exposure • H373 - May cause damage to organs through prolonged or repeated exposure • H400 - Very toxic to aquatic life • H410 - Very toxic to aquatic life with long lasting effects • H411 - Toxic to aquatic life with long lasting effects • H412 - Harmful to aquatic life with long lasting effects • H413 - May cause long lasting harmful effects to aquatic life. • H360Df - May damage the unborn child. Suspected of damaging fertility • H360D - May damage the unborn child • H360FD - May damage fertility. May damage the unborn child • H360F - May damage fertility • H361d - Suspected of damaging the unborn child • H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child • H361f - Suspected of damaging fertility • EUH066 - Repeated exposure may cause skin dryness or cracking • EUH210 - Safety data sheet available on request. • EUH208 - May produce an allergic reaction
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Exposure scenario

No information available.

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Revision Note**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.