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

1.1 Product identifier

Trade name LUKOIL NAVIGO MCL NAVIGO 50 MCL, NAVIGO 70 MCL, NAVIGO 70 MCL AW, NAVIGO 100 MCL

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

Engine Lubrication

1.3 Details of the supplier of the safety data sheet

Address

OOO LLK-INTERNATIONAL 6, Malaya Yakimanka 119180 Moscow, Russia Telephone no. +7-495-981-71-14

Fax no. +7-495-981-76-84

Information provided by / telephone +7-495-981-71-14 (9:00 - 17:00)

Advice on Safety Data Sheet sdb_info@umco.de

Supplier

Address

LUKOIL Marine Lubricants Ltd. Galatariotis Building, 5th Floor 11 Limassol Avenue 2112 Aglantzia, Nikosia Cyprus Telephone no. +49 (0)40 / 180 422 020

1.4 Emergency telephone number

For medical advice (in German and English): +49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC R52/53

2.2 Label elements

Labelling according to Directive 1999/45/EC

Hazard symbols

R phrases

52/53

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Supplemental label elements

Contains: Salts of alkyl hydroxybenzoic acids; Benzoic acid, hydroxy-, mono-C20-28-branched alkyl derivs., calcium salts (2:1) - May produce an allergic reaction.



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2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Chemical characterization Mixture (preparation)

Hazardous ingredients

No	Substance name		Additional information					
	CAS / EC / Index / REACH no	Classification 67/548/EEC	Conce	ntratic	n			%-b.w.
1	Phenol, 2,2'-polythi overbased	obis[4-C8-30-alkyl derivs., calcium salts,						
	90480-91-4	R53	>	1.00	-	<	5.00	%-b.w.
	291-829-9							
	-							
_	-							
2	Calcium long chain							
	-	R53	>	1.00	-	<	5.00	%-b.w.
	-							
	-							
	-							
3	Phosphorodithioic acid, 0,0-di-C1-14-alkyl esters, zinc salts							
	68649-42-3	Xi; R41	>	0.50	-	<	1.00	% - b.w.
	272-028-3	N; R51/53						
	-							
	-							
4	Branched alkylphe	nol and Calcium branched alkyphenol						
	74499-35-7	Repr.Cat.2; R60	>	0.50	-	<	1.00	%-b.w.
	-	Xi; R36/38						
	-	N; R50/53						
	-							
5	Phenol, dodecyl-, branched							
	121158-58-5	Repr.Cat.3; R62	>	0.50	-	<	1.00	%-b.w.
	310-154-3	Xi; R36/38						
	-	N; R50/53						
	-							
Eul	Text for all R-phrases	r pla soo soction 16						

Full Text for all R-phrases: pls. see section 16

No	Note	Specific concentration limits
4	-	R60: C >= 1.5%

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation

Remove affected persons from dangerous area by observing suitable respiratory protection measures. Irregular breathing/no breathing: artificial respiration.

After skin contact

Wash off immediately with soap and water.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.).

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After ingestion

Do not induce vomiting. Summon a doctor immediately. Never give anything by mouth to an unconscious person.

- 4.2 Most important symptoms and effects, both acute and delayed No data available.
- 4.3 Indication of any immediate medical attention and special treatment needed No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Foam; extinguishing powder; Water spray jet; Carbon dioxide Unsuitable extinguishing media Full water jet

5.2 Special hazards arising from the substance or mixture In the event of fire, the following can be released: Carbon dioxide (CO2); Carbon monoxide (CO)

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 **Environmental precautions**

Do not discharge into the drains/surface waters/groundwater.

Methods and material for containment and cleaning up 6.3

Prevent spread over a wide area (by containment with sand or earth). Take up with absorbent material (e.g., sand, kieselguhr, universal binder). When picked up, treat material as prescribed under heading "Disposal considerations".

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation, if necessary). Product inherent handling risks must be minimised taking the appropriate measures for protection and preventive actions. The working process should be designed to rule out the release of hazardous substances or skin contact as far it is possible by the state of the art.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Remove soiled or soaked clothing immediately. Avoid contact with eyes and skin. Do not inhale vapours.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed in a well-ventilated place. Protect from heat and direct sunlight.

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Requirements for storage rooms and vessels

Store product in closed containers. Storage rooms must be properly ventilated. Emptied containers may contain product residues and therefore must be handled with care. Reuse only after appropriate cleaning.

Advice on storage assembly

Do not store together with: Oxidizing agents; Acids

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

No parameters available for monitoring.

8.2 Exposure controls

Appropriate engineering controls No data available.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Safety glasses with side protection shield (EN 166)

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product . Before use, the protective gloves should be tested in any case for its specific workstation suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Appropriate Material neoprene Appropriate Material nitrile

Other

Normal chemical work clothing. rubber boots

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour

liquid brownish yellow

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Odour			
No data available			
Odour threshold No data available			
pH value No data available			
Boiling point / boiling range No data available			
Melting point / melting range			
No data available			
Decomposition point / decomposition range No data available			
Flash point Value	[240	°C
Method	ASTM D 92	240	C
Auto-ignition temperature	•		
No data available			
Oxidising properties			
No data available			
Explosive properties			
No data available			
Flammability (solid, gas)			
No data available			
Lower flammability or explosive limits			
No data available			
Upper flammability or explosive limits			
No data available			
Vapour pressure			
No data available			
Vapour density			
No data available			
Evaporation rate			
No data available			
Relative density			
No data available			
Density			
Value Reference temperature	925 -	960 15	kg/m³ °C
Method	EN ISO 12185	10	0
Solubility in water			
Remarks	insoluble		
Solubility(ies)			
No data available			
Partition coefficient: n-octanol/water			
log Pow	>	3	

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Viscosity	
Value	20.0 cSt
Reference temperature	100 °C
Туре	kinematic
Method	ASTM D 445

9.2 Other information

Other information No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

- **10.2 Chemical stability** No data available.
- **10.3 Possibility of hazardous reactions** No data available.
- **10.4 Conditions to avoid** Heat
- **10.5** Incompatible materials Oxidizing agents; Acids
- **10.6 Hazardous decomposition products** No hazardous decomposition products known.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity
No data available
Acute dermal toxicity
No data available
Acute inhalational toxicity
No data available
Skin corrosion/irritation
No data available
Serious eye damage/irritation
No data available
Respiratory or skin sensitisation
No data available
Germ cell mutagenicity
No data available
Reproduction toxicity
No data available
Carcinogenicity
No data available
STOT-single exposure
No data available
STOT-repeated exposure
No data available
Aspiration hazard
No data available
Delayed and immediate effects as well as chronic effects from short and long-term exposure
Repeated and prolonged skin contact may cause removal of natural fat from the skin and irritation of the skin.

Repeated and prolonged skin contact may cause removal of natural fat from the skin and irritation of the skin. Inhalation of vapours from the heated product can cause irritation of the respiratory tract and the eyes.

SECTION 12: Ecological information

12.1 Toxicity

Fish toxicity
No data available
Daphnia toxicity
No data available
Algae toxicity
No data available
Bacteria toxicity
No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water					
log Pow	>	3			



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12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment No data available.

12.6 Other adverse effects

No data available.

12.7 Other information

Other information Ecological data are not available.

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information No data available.

14.5 Environmental hazards Information on environmental hazards, if relevant, pls. see 14.1 - 14.3.

- 14.6 Special precautions for user No data available.
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant

SECTION 15: Regulatory information

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

 Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

 Remarks
 Annex I, part 1 + 2: not mentioned. With regard to possibly appropriate decomposition products see Chapter 10.

National regulations

National chemical inventories TSCA (USA) listed



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15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 1999/45/EC as amended in each case. Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case. EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EC National Threshold Limit Values of the corresponding countries as amended in each case. Transport regulations according to ADR, RID, IMDG, IATA as amended in each case. The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

R36/38	Irritating to eyes and skin.
R41	Risk of serious damage to eyes.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53	May cause long-term adverse effects in the aquatic environment.
R60	May impair fertility.
R62	Possible risk of impaired fertility.

Department issuing safety data sheet

UMCO Umwelt Consult GmbH

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This information is based on our present state of knowledge and experience.

The security data sheet describes products with a view to the security requirements.

However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.