SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture	Greases LUKOIL POLYFLEX EP 0-160 HD, EP 1-160 HD, EP 2-160 HD
Registration number	-
Synonyms	None.
Issue date	29-September-2015
Version number	01
Revision date	-
Supersedes date	-

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

Identified uses	LUKOIL lubricant POLYFLEX EP 180 HD Designed to lubricate the friction units of modern vehicles, industrial equipment construction, marine and other equipment subjected to heavy shock loads and reciprocating motion.
Uses advised against	This product must not be used in applications other than those recommended in Sections 1 and 15, without first seeking the advice of the supplier.

1.3. Details of the supplier of the safety data sheet

Supplier/OR

Company name	LUKOIL Neftohim Burgas AD
Address	Burgas 8104, Bulgaria
Telephone	+35955115654
Fax	+35955115555
e-mail	SDS@neftochim.bg

Manufacturer

Company name	OOO "INTESMO"
Address	"40 let VLKSM" Str.,55, 400029 Volgograd, Russia

1.4. Emergency telephone number	+1-760-476-3961 (333368)
General in EU	112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Hazard summary Prolonged or repeated skin contact may cause irritation.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms	None.
Signal word	None.
Hazard statements	The mixture does not meet the criteria for classification.

Precautionary statements

Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.

Supplemental label information	EUH208 - Contains Phosphoric acid esters/amine salt, n-2-Naphthylaniline, Substituted thiadiazole. May produce an allergic reaction.
2.3. Other hazards	Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Residual oils (petroleum), hydrotreated; Baseoil - unspecified	53 - 61	64742-57-0 265-160-8	01-2119489287-22-0007	649-470-00-4	
Classification: -					L
Paraffin oils (petroleum), catalytic de-waxed light	28 - 33	64742-71-8 265-176-5	01-2119485040-48-0002	649-478-00-8	
Classification: -					L
Lithium 12-hydroxystearate	4.3 - 15	7620-77-1 231-536-5	17-2120053281-67-0000	-	
Classification: -					
Graphite	1 - 2	7782-42-5 231-955-3	-	-	
Classification: -					
Molybdenum disulphide	0.5 - 0.9	1317-33-5 215-263-9	-	-	
Classification: -					
Phosphoric acid esters/amine salt	0.4 - 0.9	Proprietary -	-	-	
Classification: Acute Tox. 4;H302, Skin Sens. 1;H317, Eye Dam. 1;H318					
n-2-Naphthylaniline	< 0.3	135-88-6 205-223-9	-	612-135-00-8	
Classification: Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319, Carc. 2;H351, Aquatic Chronic 2;H411					
Substituted thiadiazole	< 0.15	Proprietary -	-	-	
Classification: Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Dam. 1;H318					

List of abbreviations and symbols that may be used above

CLP: Regulation No. 1272/2008.
DSD: Directive 67/548/EEC.

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
The full text for all R- and H-phrases is displayed in section 16.
Note L: The classification as a carcinogen does not apply as it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed Irritation of eyes and mucous membranes. Prolonged or repeated contact may dry skin and cause dermatitis.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

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 During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures Move containers from fire area if you can do so without risk. Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS. Be aware of potential for surfaces to become slippery.

6.2. Environmental precautions Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Never return spills to original containers for re-use.

6.4. Reference to other sections For personal protection, see section 8. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Avoid prolonged exposure. Avoid contact with eyes, skin, and clothing. Observe good industrial hygiene practices. Wear appropriate personal protective equipment (See Section 8).

7.2. Conditions for safe storage, including any incompatibilities Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s) For detailed information, see section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Graphite (CAS 7782-42-5)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.
Molybdenum disulphide (CAS 1317-33-5)	STEL	20 mg/m3	
	TWA	10 mg/m3	

United Kingdom

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Graphite (CAS 7782-42-5)	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.
Molybdenum disulphide (CAS 1317-33-5)	STEL	20 mg/m3	
	TWA	10 mg/m3	

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no-effect level (DNEL)

Components	Type	Route	Value	Form
Lithium 12-hydroxystearate (CAS 7620-77-1)	Workers	Dermal	41 mg/kg bw/day	Long term exposure systemic effects
		Inhalation	3 mg/m3	Long term exposure systemic effects

Predicted no effect concentrations (PNECs)

Components	Type	Route	Value	Form
Lithium 12-hydroxystearate (CAS 7620-77-1)	Aqua (freshwater)	Not applicable	0.1 mg/l	
	Aqua (intermittent releases)	Not applicable	1 mg/l	
	Aqua (marine water)	Not applicable	0.01 mg/l	

8.2. Exposure controls

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection Wear appropriate chemical resistant gloves.

- Other Wear suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Semi-solid.

Form Semi-solid.

Colour Dark grey.

Odour Not available.

Odour threshold Not available.

pH Not applicable.

Melting point/freezing point Not applicable.

Initial boiling point and boiling range Not applicable.

Flash point 200.0 °C (392.0 °F) Open cup ASTM D 92

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Vapour pressure Not available.

Vapour density Not available.

Relative density Not available.

Solubility(ies) Not available.

Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	2200 - 2800 Pa·s (-30 °C (-22 °F))
Explosive properties	Not explosive.
Oxidizing properties	Not oxidising.
9.2. Other information	No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	May cause an allergic skin reaction.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms Irritation of eyes and mucous membranes.

11.1. Information on toxicological effects

Components	Species	Test results
n-2-Naphthylaniline (CAS 135-88-6)		
Acute		
Oral		
LD50	Rat	8730 mg/kg
Paraffin oils (petroleum), catalytic de-waxed light (CAS 64742-71-8)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg, 24 Hours
Oral		
LD50	Rat	> 5000 mg/kg
Residual oils (petroleum), hydrotreated; Baseoil - unspecified (CAS 64742-57-0)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	2.18 mg/l, 4 Hours
Oral		
LD50	Rat	5000 mg/kg

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	May cause eye irritation on direct contact.
Respiratory sensitisation	Based on available data, the classification criteria are not met.
Skin sensitisation	The product contains a small amount of sensitising substance which may provoke an allergic reaction among sensitive individuals.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Due to partial or complete lack of data the classification is not possible.

IARC Monographs. Overall Evaluation of Carcinogenicity

n-2-Naphthylaniline (CAS 135-88-6) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity Based on available data, the classification criteria are not met.

Specific target organ toxicity - single exposure Based on available data, the classification criteria are not met.

Specific target organ toxicity - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Not likely, due to the form of the product.

Mixture versus substance information No information available.

Other information May cause allergic respiratory and skin reactions.

SECTION 12: Ecological information

12.1. Toxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.2. Persistence and degradability No data is available on the degradability of this product.

12.3. Bioaccumulative potential No data available.

Partition coefficient n-octanol/water (log Kow)

n-2-Naphthylaniline (CAS 135-88-6) 4.38

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

n-2-Naphthylaniline (CAS 135-88-6)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended

Not listed.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding, as amended

n-2-Naphthylaniline (CAS 135-88-6)

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances

n-2-Naphthylaniline (CAS 135-88-6)

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

n-2-Naphthylaniline (CAS 135-88-6)

Directive 94/33/EC on the protection of young people at work

n-2-Naphthylaniline (CAS 135-88-6)

Other regulations	The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.
National regulations	Follow national regulation for work with chemical agents.
15.2. Chemical safety assessment	No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

PBT: Persistent, bioaccumulative and toxic.

vPvB: Very Persistent and very Bioaccumulative.
DNEL: Derived No-Effect Level.
PNEC: Predicted No-Effect Concentration.
EC50: Effective Concentration, 50%.
LD50: Lethal Dose, 50%.

References	IUCLID ECHA registered substances database IARC Monographs. Overall Evaluation of Carcinogenicity
Information on evaluation method leading to the classification of mixture	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.
Full text of any H-statements not written out in full under Sections 2 to 15	H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage.

H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H411 Toxic to aquatic life with long lasting effects.

Training information Follow training instructions when handling this material.

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available at the date of revision and exclusively refer to the product in its as-delivered condition. The information and recommendations are offered for the user's consideration and examination. The logo and the name "LUKOIL oil company" may include anyone or more of LUKOIL or any affiliates in which they directly or indirectly hold any interest.