

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS # : 30406

COPAL GEP 0

Date of the	previous	version:	2017-04-25

Revision Date: 2017-10-31

Version 7.02

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

1.1. Product identifier

Product name	COPAL GEP 0
Number	HNK
Substance/mixture	Mixture

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

Identified uses

Lubricating grease.

1.3. Details of the supplier of the safety data sheet

Supplier

A - TOTAL UK LIMITED 183 Eversholt St, Kings Cross London, NW1 1BU UNITED KINGDOM Tel: +44 (0)20 7339 8000 Fax: +44 (0)20 7339 8033

B - TOTAL LUBRIFIANTS 562 Avenue du Parc de L'ile 92029 Nanterre Cedex FRANCE Tél: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71

For further information, please contact:

Contact Point	A - HSE
E-mail Address	B - HSE A - rm.gb-msds@total.co.uk
	B - rm.msds-lubs@total.com

1.4. Emergency telephone number

Emergency telephone: +44 1235 239670

UK: National Poisons Information Service (NPIS): NHS on 111 or a doctor

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture



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REGULATION (EC) No 1272/2008

For the full text of the H-Statements mentioned in this Section, see Section 2.2.

Classification

The product is not classified as dangerous according to Regulation (EC) No. 1272/2008

2.2. Label elements

Labelled according to

REGULATION (EC) No 1272/2008

Signal word None

Hazard Statements None***

Precautionary statements None***

Supplemental Hazard Statements EUH210 - Safety data sheet available on request***

2.3. Other hazards

Physical-Chemical Properties Contaminated surfaces will be extremely slippery.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture***

Chemical nature

Mineral oil of petroleum origin.

Hazardous components **Chemical Name** EC-No REACH CAS-No Weight % **GHS Classification** Registration Number 232-455-8*** 01-2119487078-27 8042-47-5 3-<5 White mineral oil (petroleum) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411) Phosphorodithioic acid, 270-608-0*** 01-2119493628-22 68457-79-4 1-<2.5 mixed O,O-bis(iso-Bu and Eye Dam. 1 (H318) Skin Irrit. 2 (H315) pentyl) esters, zinc salts

Additional information

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures



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General advice	IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR EMERGENCY MEDICAL CARE.	ROR
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any con continue flushing for at least 15 minutes. Keep eye wide open while rinsing.	tact lenses and
Skin contact	Wash off immediately with soap and plenty of water while removing all conta clothes and shoes. Wash contaminated clothing before reuse. Take victim in hospital.	
Inhalation	Remove casualty to fresh air and keep at rest in a position comfortable for b breathing, give artificial respiration.	reathing. If not
Ingestion	Clean mouth with water. Do NOT induce vomiting. Never give anything by m unconscious person. Call a physician or poison control centre immediately.	nouth to an
Protection of first-aiders	First aider needs to protect himself. See Section 8 for more detail. Do not us mouth-to-mouth method if victim ingested or inhaled the substance; induce a respiration with the aid of a pocket mask equipped with a one-way valve or or respiratory medical device.	artificial
4.2. Most important sympto	oms and effects, both acute and delayed	
Eye contact	Not classified based on available data. The supplier of some components control this formulation has indicated that the classification as irritant is not required	
Skin contact	Not classified based on available data. High pressure injection of the products under skin may have very serious consequences even though no symptom or injury may be apparent.	
Inhalation	Not classified based on available data.	
Ingestion	Not classified based on available data. Ingestion may cause gastrointestinal nausea, vomiting and diarrhoea.	irritation,
4.3. Indication of any imme	diate medical attention and special treatment needed	
Notes to physician	Treat symptomatically.	
Section 5: FIRE-FIGHTING N	IEASURES	
5.1. Extinguishing media		
Suitable extinguishing media	Carbon dioxide (CO 2). ABC powder. Foam. Water spray or fog.	
Unsuitable Extinguishing Media	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	Incomplete combustion and thermolysis may produce gases of varying toxic carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soc	· · · · · · · · · · · · · · · · · · ·



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	be highly dangerous if inhaled in confined spaces or at high concentration. Combustion products include sulphur oxides (SO2 and SO3) and Hydrogen sulphide H2S. Phosphorous oxides. Zinc oxides. Sodium oxides. Mercaptans.***
5.3. Precautions for fire-fig	jhters
Special protective equipment for fire-fighters	Wear self-contained breathing apparatus and protective suit.
Other information	Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Section 6: ACCIDENTAL RE	ELEASE MEASURES
6.1. Personal precautions,	protective equipment and emergency procedures
General Information	Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.
6.2. Environmental precau	tions
General Information	Do not allow material to contaminate ground water system. Prevent entry into waterways, sewers, basements or confined areas.
6.3. Methods and material	for containment and cleaning up
Methods for containment	If necessary dike the product with dry earth, sand or similar non-combustible materials.
Methods for cleaning up	Dispose of contents/container in accordance with local regulation. In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.
6.4. Reference to other se	ctions_
Personal protective equipment	See Section 8 for more detail.
Waste treatment	See section 13.
Section 7: HANDLING AND	STORAGE
7.1. Precautions for safe h	andling
Advice on safe handling	For personal protection see section 8. Use only in well-ventilated areas. Avoid contact with

Prevention of fire and explosion Take precautionary measures against static discharges.

skin, eyes and clothing.

Hygiene measures Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Provide regular cleaning of equipment,



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	work area and clothing. Do not use abrasives, solvents or fuels. Do not that have been contaminated with product. Do not put product contam workwear pockets.			
7.2. Conditions for safe st	orage, including any incompatibilities			
Technical measures/Storage conditions	Keep away from food, drink and animal feedingstuffs. Keep in a bund container tightly closed. Preferably keep in the original container. Othe the statutory information from the labels onto the new container. Do n labels of the containers (even if they are empty). Design the installation accidental emissions of product (due to seal breakage, for example) of electrical contacts. Store at room temperature. Protect from moisture.	erwise, reproduce all ot remove the hazard ons in order to avoid onto hot casings or		
Materials to avoid	Strong oxidising agents.***			
7.3. Specific use(s)				
Specific use(s)	Please refer to Technical Data Sheet for further information.			
Section 8: EXPOSURE CON	NTROLS / PERSONAL PROTECTION			

8.1. Control parametres

Exposure limits

Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined)

inhalation)

Legend

See section 16

Derived No Effect Level (DNEL)

DNEL Worker (Industrial/Professional)

Chemical Name	Shart tarm avatamia	Short term, local effects	Long term avetemie	Long term, local effects
Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
White mineral oil			220 mg/kg/8h (dermal)	
(petroleum)			160 mg/m ³ /8h (aerosol -	
8042-47-5			inhalation)	
Phosphorodithioic acid,			11.87 mg/kg bw/day	
mixed O,O-bis(iso-Bu			Dermal	
and pentyl) esters, zinc			8.13 mg/m ³ Inhalation	
salts			-	
68457-79-4				
DNEL Consumer				
Chemical Name	Short term, systemic	Short term, local effects	Long term, systemic	Long term, local effects
	effects		effects	
White mineral oil			92 mg/kg/8h (dermal)	
(petroleum)			35 mg/m ³ /8h (aerosol -	

8042-47-5



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	40 mg/kg/24h (oral)
Phosphorodithioic acid,	5.93 mg/kg bw/day
mixed O,O-bis(iso-Bu	Dermal
and pentyl) esters, zinc	2.06 mg/m ³ Inhalation
salts	0.24 mg/kg bw/day Oral
68457-79-4	

Predicted No Effect Concentration (PNEC)

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4					100 mg/l	10.67 mg/kg food

8.2. Exposure controls

Occupational Exposure Controls

Engineering measures	Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.
Personal protective equipment	
General Information	Protective engineering solutions should be implemented and in use before personal protective equipment is considered. The personal protective equipment (PPE) recommendations apply to the product AS DELIVERED. In case of mixtures or formulations, it is suggested that you contact the relevant PPE suppliers.
Respiratory protection	None under normal use conditions. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). Type A/P1. Warning ! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.***
Eye protection	If splashes are likely to occur, wear:. Safety glasses with side-shields. EN 166.***
Skin and body protection	Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing. Type 4/6.***
Hand protection	Hydrocarbon-proof gloves. Fluorinated rubber. Nitrile rubber. In case of prolonged contact with the product, it is recommended to wear gloves complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency. 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, and the contact time.***



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Environmental exposure controls

General Information

The product should not be allowed to enter drains, water courses or the soil.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Colour Physical state @20°C Odour Odour Threshold		black solid characteristic No information available	
<u>Property</u> pH Melting point/range	Values_	<u>Remarks</u> Not applicable No information available	<u>Method</u>
Boiling point/boiling range		Not applicable	
Flash point	> 200 °C > 392 °F		
Evapouration rate Flammability Limits in Air	> 332 1	No information available No information available	
Upper Lower Vapour pressure Vapour density Relative density Density Water solubility Solubility in other solvents logPow Autoignition temperature Decomposition temperature Viscosity, kinematic Explosive properties Oxidising properties Possibility of hazardous reactions	~0.900 ~ 900 kg/m ³ > 250 °C > 482 °F Not explosive No information available None under normal proce	No information available No information available No information available @ 20 °C @ 20 °C Insoluble No information available No information available No information available	ASTM E659 ASTM E659

9.2. Other information

Freezing point

No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity



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General Information	None under normal processing.	
10.2. Chemical stability		
Stability	Stable under recommended storage conditions.	
10.3. Possibility of hazardo	us reactions	
Hazardous reactions	No dangerous reaction known under conditions of normal use.	
10.4. Conditions to avoid		
Conditions to avoid	Keep away from open flames, hot surfaces and sources of ignition. Keep awa and sparks.	ay from heat
10.5. Incompatible materia	ls_	
Materials to avoid	Strong oxidising agents.	
10.6. Hazardous Decompos	ition Products	
Hazardous Decomposition Product	s Incomplete combustion and thermolysis may produce gases of varying toxici carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soo decomposition products. Sodium oxides. Phosphorous oxides. Combustion p include sulphur oxides (SO2 and SO3) and Hydrogen sulphide H2S. Zinc ox Mercaptans.***	t. Other products
Section 11: TOXICOLOGICA	LINFORMATION	
11.1. Information on toxicc	logical effects	
Acute toxicity Local effects Produc	t Information	

Skin contact	. Not classified based on available data. High pressure injection of the products under the skin may have very serious consequences even though no symptom or injury may be apparent.
Eye contact	. Not classified based on available data. The supplier of some components contained within this formulation has indicated that the classification as irritant is not required.
Inhalation	. Not classified based on available data.
Ingestion	. Not classified based on available data. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
ATEmix (oral)	29,859.00 mg/kg
ATEmix (dermal)	25,167.00 mg/kg
ATEmix (inhalation-gas)	> 20,000.00 ppm



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ATEmix (inhalation-dust/mist)	27.90 mg/l
ATEmix (inhalation-vapour)	331.20 mg/l

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
White mineral oil (petroleum)	LD50 > 5000 mg/kg bw (rat)	LD50 > 2000 mg/kg bw (rabbit)	LC50 (4h) > 5000 mg/m ³ air
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts	LD50 3600 mg/kg (Rat - OECD 401)	LD50 > 20000 mg/kg (Rabbit - OECD 402)	(aerosol) (rat)
Sensitisation			
Sensitisation	Not classified based on available data.		
Specific effects			
Carcinogenicity Germ cell mutagenicity	Not classified based on available data. Not classified based on available data.		
Reproductive toxicity	Not classified based on available data.		
Repeated dose toxicity			
Subchronic Toxicity	Not classified based on available data.		
Target Organ Effects (STOT)			
Target Organ Effects (STOT)	None known.***		
Specific target organ systemic toxicity (single exposure)	Not classified based on available data.		
Specific target organ toxicity - repeated exposure	Not classified based on available data.		
Aspiration toxicity	Not classified based on available data.		
Other information			
Other adverse effects	Characteristic skin lesions (oil blisters) may develop following prolonged and repeated exposures (contact with contaminated clothing).		

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Not classified based on available data.

Acute aquatic toxicity - Product Information

No information available.



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Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
White mineral oil (petroleum) 8042-47-5	EL50 (48h) > 100 mg (Pseudokirchnerella subcapitata - OECD 201)	EL50 (48h) > 100 mg/l (Daphnia magna - OECD 202)	LL50 (96h) > 100 mg/l (Oncorhynchus mykiss - OECD 203)	
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4	EbL50 (72h) 21 mg/l (Scenedesmus subspicatus - OECD 201)	EC50 (48h) 23 mg/l (Daphnia magna - OECD 202)	LC50 (96h) 4.5 mg/l (Cyprinodon variegatus - OECD 203)	

Chronic aquatic toxicity - Product Information

No information available.

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
White mineral oil (petroleum) 8042-47-5		NOEL (21d) 10 mg/l (Daphnia magna - OECD 211)	NOEL (14/21d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts 68457-79-4		NOEC(21d) 0.8 mg/l Daphnia magna		

Effects on terrestrial organisms

No information available.

12.2. Persistence and Degradability

General Information

No information available.

12.3. Bioaccumulative potential

Product Information

No information available.

logPowNo information availableComponent Information.***

Chemical Name	log Pow
White mineral oil (petroleum) - 8042-47-5	-
Phosphorodithioic acid, mixed O,O-bis(iso-Bu and pentyl) esters, zinc salts - 68457-79-4	0.69

12.4. Mobility in soil

Soil

Given its physical and chemical characteristics, the product generally shows low soil



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	mobility.		
Air	Loss by evaporation is limited.		
Water	The product is insoluble and floats on water.		
12.5. Results of PBT and	vPvB assessment		
PBT and vPvB assessment	No information available.		
12.6. Other adverse effect	zts_		
General Information	No information available.		
Section 13: DISPOSAL CO	NSIDERATIONS		
13.1. Waste treatment me	ethods		
Waste from residues / unused products	Should not be released into the environment. Do not empty into drains. Dispose of in accordance with the European Directives on waste and hazardous waste.		
Contaminated packageing	Empty containers should be taken to an approved waste handling site for recycling or disposal.		
	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. The following Waste Codes are only suggestions:. 12 01 12.		
EWC Waste Disposal No	application specific. Waste codes should be assigned by the user based on the applicati for which the product was used. The following Waste Codes are only suggestions: 12 0		
EWC Waste Disposal No Other information	application specific. Waste codes should be assigned by the user based on the applicati for which the product was used. The following Waste Codes are only suggestions: 12 0		
	application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions:. 12 0 12. Refer to section 8 for safety and protective measures for disposal personnel.		
Other information	application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions:. 12 0 12. Refer to section 8 for safety and protective measures for disposal personnel.		
Other information	application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions:. 12 0 12. Refer to section 8 for safety and protective measures for disposal personnel.		

ADN not regulated

Section 15: REGULATORY INFORMATION

not regulated

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

European Union

ICAO/IATA



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Further information

No information available

15.2. Chemical Safety Assessment

Chemical Safety Assessment No information available

15.3. National regulatory information

The United Kingdom

• Avoid exceeding occupational exposure limits (see section 8).

Ireland

• Avoid exceeding occupational exposure limits (see section 8).

Section 16: OTHER INFORMATION

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

- H304 May be fatal if swallowed and enters airways
- H315 Causes skin irritation
- H318 Causes serious eye damage
- H411 Toxic to aquatic life with long lasting effects

Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists bw = body weight bw/day = body weight/day EC x = Effect Concentration associated with x% response GLP = Good Laboratory Practice IARC = International Agency for Research of Cancer LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals LL = Lethal Loading NIOSH = National Institute of Occupational Safety and Health NOAEL = No Observed Adverse Effect Level NOEC = No Observed Effect Concentration NOEL = No Observed Effect Level OECD = Organization for Economic Co-operation and Development OSHA = Occupational Safety and Health Administration UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material DNEL = Derived No Effect Level PNEC = Predicted No Effect Concentration dw = dry weightfw = fresh water



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mw = marine water or = occasional release	
Legend Section 8	
TWA: Time Weight Average	

STEL: Shor	rt Time Exposure Limit		
+	Sensitiser	*	Skin designation
**	Hazard Designation	C:	Carcinogen
M:	Mutagen	R:	Toxic to reproduction

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Revision Note	*** Indicates updated section. &. 1.**

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of Safety Data Sheet