MATERIAL SAFETY DATA SHEET

Date of Issue 1st December 2010.

1.0 IDENTIFICATION

1.1 Product Name: VAPOROL/VAPOROL CONCENTRATE

1.2 Supplier

Vapor-Tek Limited Fairclough Street Bolton, BL3 2AF

Telephone Number: +44 (0)1204 521 795

Fax

: +44 (0)1204 364576

E-mail

-information@vapor-tek.co.uk

2.0 COMPOSITION/INFORMATION OF INGREDIENTS

A blend of corrosion inhibitors, antioxidants, metals deactivators in mineral oil.

Severely hydrotreated naphthenic mineral oil (polycyclic aromatic hydrocarbons substantially absent).

ii)Amine soaps of mixed fatty acids.

iii)Polyhydroxy fatty acid ester (commercial grade of compound used in food production).

iv)Minor components (triazole metals' deactivator, antioxidant<1.0%).

3.0 HAZARDS IDENTIFICATION

Not classed as hazardous for supply.

May cause irritation to eyes and skin.

Vapour may be irritant to respiratory tract (especially if heated).

Combustable

4.0 FIRST AID MEASURES

4.1 Inhalation

: Remove from exposure

4.2 Skin contact

: Wash with water, remove any contaminated clothing.

4.3 Eye contact

: Irrigate with water. Seek medical assistance.

4.4 Ingestion

: Do not induce vomiting. Seek medical assistance

5.0FIRE FIGHTING MEASURES

Foam, Dry powder, CO2. DO NOT USE WATER.

Water fog may be used to cool containers.

Combustion may release undefined organic compounds.

Wear breathing apparatus if necessary.

6.0 ACCIDENTAL RELEASE

6.1 Wear oil resistant protective clothing and safety glasses to protect against unexpected splashes.

6.2 Prevent entry into sewers and waterways.

6.3 Dispose of in and approved and permitted way. Absorb onto earth sand or similar.

7.0 HANDLING AND STORAGE

7.1 Handling : Avoid prolonged or repeated contact with skin and eyes.

7.2 Storage : Store in steel or other suitable containers. Avoid non-ferrous metals including galvanised steel.

Storage life indefinite (closed drum) under normal conditions. Store below 40 deg C.

8.0 EXPOSURE CONTROL/ PERSONAL PROTECTION

8.1 Hand and body protection: Wear suitable protective clothing. Oil resistant clothing & gloves

: Where splashes are possible, wear suitable eye protection. 8.2 Eyes

8.3 Other : DO NOT BREATHE FUMES OR SPRAY.

9.0 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance

: Light amber liquid : Mild ammoniacal

9.2 Odour 9.3 pH

: Aqueous dispersion 7.0 units

: N/A

9.4 Boiling point/range

: N/A

9.5 Melting point/range

: N/A

9.6 Flash point

: Greater than >90 deg C

9.7 Flammability

: Combustible

9.8 Auto-flammability 9.9 Explosive properties : Not known

9.10 Oxidising properties : N/A 9.11 Vapour pressure

: N/A

9.12 Relative density

: 0.91 - 0.93

9.13 Solubility

: Insoluble in water

(1)

10.0 STABILITY AND REACTIVITY

- 10.1 Stable unless overheated.
- 10.2 Avoid open flames
- 10.3 Thermal decomposition will release undefined organic compounds
- 10.4 Incompatible with strong oxidising compounds

11.0 TOXICOLOGICAL INFORMATION

11.1 Inhalation : Slightly irritant to respiratory tract. Could cause nausea or dizziness.

11.2 Skin contact : Prolonged or frequent contact could cause irritation and may lead to dermatitis.

11.3 Eye contact : Irritant.

11.4 Ingestion : Unlikely unless deliberate but could cause gastro-intestinal irritation.

11.5 Long-term exposure : No known ill effects from general usage.

12.0 ECOLOGICAL INFORMATION

No direct information, but not expected to be dangerous to the environment.

Likely to be slowly biodegradable.

Does not contain any substances classed as 'Dangerous for the environment'

13.0 DISPOSAL

13.1 In accordance with national and local regulations.

13.2 Prevent from entering sewers and waterways.

13.3 Containers to be disposed of by authorised agents.

14.0 TRANSPORT INFORMATION

Not classed as hazardous for transportation.

15.0 REGULATORY INFORMATION

Not classed as hazardous for use.

16.0 OTHER INFORMATION

These date are presented in good faith and are believed to be accurate. However it is for users themselves as to the suitability of the product for their application.

Sources of information used in the compilation of this document includes manufacturers' Material Safety Data Sheets and Labels, CHIP Approved Supply lists, Codes of Practice and Guidance Notes.

In some instances this product may be used as an additive in the preparation of corrosion preventatives, Users are reminded that, when mixed with other substances, the properties of these must be taken into account when assessing hazards and dangers.

VAPOROL/VAPOROL CONCENTRATE does not contain any halogen or sulphur bearing compounds, heavy metals or compounds classified as toxic, sensitising, corrosive carcinogenic or mutagenic.

Global Chemical Inventories

USA All components are on the US TCSA inventory or are exempt.

EU All components are in compliance with the EC seventh amendment Directive 92/32/EEC.

Japan All components are in compliance with the Chemical Substances Control Law of Japan.

Australia All components are in compliance with Chemical notification requirements in Australia.

Canada All components are in compliance with the Canadian Environmental Protection Act and

are present on the Domestic Substances List.
All components are in compliance in Korea.

Korea All components are in compliance in Korea.

Philippines All components are in compliance with the Philippines Toxic Substances and Hazardous

and Nuclear Wastes Control Act of 1990 (R.A.6969).

China All components of this product are listed on the Inventory of existing Chemical

Substances in China



MATERIAL SAFETY DATA SHEET (MSDS)

Section 1 - Product and company identification

Product identifier

: SKF Grease LGHP 2 or LGHP 2

Product description

: N/Av

Internal part no.

: LGHP 2

Product use

: High performance polyurea bearing grease

Trade name

: SKF Grease LGHP 2 or LGHP 2

Supplier's name and address:

Manufacturer's name and address:

SKF Canada Limited

SKF Maintenance Products B.V.

40 Executive Court Scarborough, ON, Canada Post 8ox # 1008 NL-3430 BA

M15 4N4

Nieuwegein, Utrecht, The Netherlands

Emergency tel. #

: 1. SKF, The Netherlands at +31 30 6307200

2. SKF, Scarborough, Ontario at (416) 299-1220 (24 Hours)

Section 2 - Composition/information on ingredients

			LC50(4hr)	LD50 <u>oral</u> <u>dermal</u>				
<u>Ingredients</u>	<u>CAS #</u>	% (weight)	inh, rat					
Alkyl diphenylamine	68411-46-1	1.00 - 5.00	N/Av	>5000 mg/kg (rat)	>2000 mg/kg (rabbit)			
Base oil	64742-70-7	60.00 - 100.00	N/Av	N/Av	N/Av			

Section 3 - Hazards identification

Emergency overview

Paste: Light blue, Characteristic odour.

Caution! May be mildly irritating to eyes and skin, Ingestion of large amounts may be harmful. May cause respiratory irritation.

Potential health effects

Target organs

: Eyes, skin, respiratory system and digestive system.

Routes of exposure

: Eye contact; Skin contact; Ingestion; Inhalation.

Signs and symptoms of short-term (acute) exposure

Inhalation

; If product is heated or mists are formed, inhalation may cause irritation to the nose, throat and respiratory

tract. May cause coughing and breathing difficulties.

Skin

: May cause mild skin irritation. Prolonged contact, such as when trapped against the skin under clothing or

jewelry, may be more irritating. Hydrocarbons injected into the skin under pressure can cause severe injury.

Eyes

: May cause mild eye irritation.

Ingestion

: Ingestion may cause irritation to mucous membranes. May have laxative effects. May cause nausea,

vomiting, and diarrhea.

Potential chronic health effects

Prolonged or repeated skin contact may cause defatting and drying resulting in irritation and

possible dermatitis.

Other important hazards

: None reported by the manufacturer.

Carcinogenic status Additional health hazards : See TOXICOLOGICAL INFORMATION, Section 11.: See TOXICOLOGICAL INFORMATION, Section 11.

Section 4 - First aid measures

Inhalation

: If breathed in, move person into fresh air. If breathing has stopped, give artificial respiration.

Get medical attention/advice if you feel unwell.

Skin contact

: In case of contact with skin, wash with mild soap and plenty of water. If irritation persists, seek prompt medical attention. Wash contaminated clothing before re-use. Subcutaneous

injection may require surgical treatment.



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Eye contact Ingestion : Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get

medical attention.

Section 5 - Fire fighting measures

Fire hazards/conditions of flammability

Not flammable under normal conditions of handling. Liquid may burn upon heating to temperatures at or above the flashpoint. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not pressurize, cut, heat or weld empty containers. Product may float, and be re-ignited at the water's surface.

Flash point

210°C

Flash point method

Seta Flash CC

Auto-ignition temperature

Upper flammable limit (% by vol.)

: N/Av

Lower flammable limit (% by vol.)

: N/Av

· N/Av

Oxidizing properties

None known.

Flame projection length

N/Ap

Flashback observed

: N/Ap

Explosion data: Sensitivity to mechanical impact / static discharge

: Not expected to be sensitive to mechanical impact or static discharge.

Suitable extinguishing media

: Dry chemical, foam, carbon dioxide and water fog. Do not use water jet, as this may spread

Special fire-fighting procedures/equipment

: Firefighters should wear proper protective equipment and self contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. Direct water or foam spray may cause frothing which can increase the intensity and range of the fire.

Hazardous combustion products

: Oxides of carbon, sulphur, nitrogen, phosphorus and other unidentified organic compounds.

Section 6 - Accidental release measures

Personal precautions

: Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Keep all other personnel upwind and away from the spill/release.

Environmental precautions

Do not flush into surface water or sanitary sewer system. For large spills, dike the area to prevent spreading.

Spill response/cleanup

Ventilate area of release. Eliminate all ignition sources. Stop the spill at source if it is safe to do so. Cover any spilled material with non-combustible absorbent material, such as vermiculite or sand, then place absorbent material into a container for later disposal (see Section 13). Clean contaminated floors and objects thoroughly while observing environmental regulations. Notify the appropriate authorities as required.

regulations. Notify t

Prohibited materials

None known.

Section 7 - Handling and storage

Safe handling procedures

: Wear suitable protective equipment during handling. Use in a well ventilated area. Avoid breathing vapours. Avoid contact with skin, eyes and clothing. Keep container tightly closed when not in use. Keep away from heat and flame. Keep away from incompatibles. Handle and open container with care. Wash thoroughly after handling. Warning: High pressure greasing equipment is capable of injecting product under the skin. Such apparatus should be handled with care. See Section 3. Do not heat above flashpoint.

Storage requirements

: Store in a cool, dry, well ventilated area, away from heat and ignition sources. Store away from incompatible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

Incompatible materials

 Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite.

Special packaging materials

: Always keep in containers made of the same materials as the supply container.



MATERIAL SAFETY DATA SHEET (MSDS)

Section 8 - Exposure controls and personal protection								
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Ingredients	TWA	STEL	<u>PEL</u>	<u>STEL</u>				
Alkyl diphenylamine	N/Av	N/Av	N/Av	N/Av				
Base oil	5mg/m³ (As 'Oil mist,	N/Av	5mg/m³ (As 'Oil	N/Av				

والكامران الامارات والأرامية فالواقيان والراب والمستوية ووييداني والوام والمرادي والمرادي والمرادي والمرادي والمرادي والمرادي Ventilation and engineering measures

Use with adequate ventilation. Local ventilation is recommended if the product is misted or

used in a confined space, or if the TLV is exceeded.

Respiratory protection Where exposure is likely to be prolonged or is unknown wear approved respiratory protection.

If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised.

Impervious gloves must be worn when using this product. Confirmation of what type of Skin protection

material is most suitable for the intended application, should be obtained from glove

suppliers.

Eye / face protection

Vapour density (Air = 1)

Safety glasses with side-shields or chemical splash goggles.

Other protective equipment Depending on conditions of use, an impervious apron should be worn. Other equipment may

> be required depending on workplace standards. An eyewash station and safety shower should be made available in the immediate working area. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and at the end of

workday.

Section 9 - Physical and chemical properties

Appearance Light blue Physical state paste Odour threshold N/Av

Odour characteristic

N/Av

Specific gravity 0.9 **Boiling point** N/Av 253°C Coefficient of water/oil distribution

Melting/freezing point

Solubility in water Insoluble.

N/Av

Vapour pressure (mmHg @ 20° C / 68° F) : N/Av

> Evaporation rate (n-Butyl acetate = 1) : N/Av

N/Ap

Volatiles (% by weight) N/Av Volatile organic compounds (VOC's)

: N/Av

Viscosity Absolute pressure of vontainer NAv

: N/Av

Section 10 - Reactivity and stability data

: Stable under the recommended storage and handling conditions prescribed. Hazardous Stability and reactivity

polymerisation does not occur.

Conditions to avoid Keep away from excessive heat, open flames, sparks and other possible sources of ignition.

Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not

pressurize, cut, heat or weld empty containers.

Materials to avoid and incompatibility

: See Section 7 (Handling and Storage) section for further details.

Hazardous decomposition products

: None known, refer to hazardous combustion products in Section 5.

Section 11 - Toxicological information

: There is no available data for the product itself, only for the ingredients. See Section Toxicological data

2.

Mild skin irritant. Mild eye irritant. irritancy of product



MATERIAL SAFETY DATA SHEET (MSDS)

Carcinogenic status

: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects

Not expected to have other reproductive effects.

Teratogenicity

Not expected to be a teratogen.

Mutagenicity

Not expected to be mutagenic in humans.

Sensitization to material

Not expected to be a skin or respiratory sensitizer.

Synergistic materials

: None known or reported by the manufacturer.

Medical conditions aggravated by overexposure

Pre-existing skin, eye and respiratory disorders.

Section 12 - Ecological information

Environmental effects

: No information available.

Important environmental characteristics

: No data is available on the product itself. The product should not be allowed to enter drains

or water courses, or be deposited where it can affect ground or surface waters.

Ecotoxicological

: No data is available on the product itself.

Section 13 - Disposal considerations

Handling for disposal

: Handle waste according to recommendations in Section 7. Do not contaminate ponds,

waterways or ditches with chemical or used container.

Methods of disposal

: Dispose of in accordance with federal, provincial and local hazardous waste laws.

Section 14 - Transportation information								
Regulatory Information	UN Number	Shîpping Name	Class	Packing Group	Label			
TDG	None	Not regulated.	not regulated	none	\otimes			
TDG Additional	None.	kadalara 1900 bersama 1900 - perinduktu arabasan salah sama lamba 1900 bersama da Samah (1905 bersama 1906 ber		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
information				alamana da para da Para da Araba da Ar	Manager of the state of the sta			

Section 15 - Regulatory information

Canadian Environmental Protection Act (CEPA): This product contains a chemical or chemicals that are on the Canadian Non -Domestic Substances List. This product contains: Base oil. All other ingredients listed appear on the DSL.

WHMIS classification:

This product is not a WHMIS controlled product in Canada.



This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

US federal information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

Section 16 - Other information

Legend

: ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstract Services

DSL: Domestic Substances List

HSDB: Hazardous Substances Data Bank

IARC: International Agency for Research on Cancer

Inh: Inhalation

MSHA: Mine Safety and Health Administration

N/Ap: not applicable



MATERIAL SAFETY DATA SHEET (MSDS)

N/Av: not available

NIOSH: National Institute of Occupational Safety and Health OSHA: Occupational Safety and Health Administration

PEL: Permissible exposure limit

RTECS: Registry of Toxic Effects of Chemical Substances

STEL: Short Term Exposure Limit

TDG: Canadian Transportation of Dangerous Goods Act & Regulations

TLV: Threshold Limit Values TSCA: Toxic Substance Control Act TWA: Time Weighted Average

WHMIS: Workplace Hazardous Materials Identification System

References

: 1. International Agency for Research on Cancer Monographs, searched 2007.

2. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2007

(Chempendium, HSDB and RTECs).

3. Material Safety Data Sheets from manufacturer.

4. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological

Exposure Indices for 2006.

Prepared for:

SKF Canada Limited 40 Executive Court

Scarborough, ON, Canada, M1S 4N4

Telephone: 416-299-1220

MSDS Preparation Date (dd/mm/yyyy)

: 18/10/2007

End of document