SAFETY DATA SHEET

Magna SW 32

(In accordance with Article 41, Paragraph 1, of Industrial Safety and Health Act)

Section 1. Chemical product and company identification

Product name	Magna SW 32
Code	468967-KR01
SDS no.	468967
Supplier	BP Korea Ltd. 2F, 306, Banpo-daero Seocho-gu, Seoul, 06509 Republic of Korea Tel: +(82) 02-3479-3999 Fax: +(82) 02-3479-3971
EMERGENCY TELEPHONE NUMBER	Carechem: +65 3158 1074 (24 hours)
Relevant identified uses of the	substance or mixture and uses advised against
Use of the substance/ mixture	Slideway oil. For specific application advice see appropriate Technical Data Sheet or consult our company representative.

Section 2. Hazards identification

GHS Classification	LONG-TERM AQUATIC HAZARD - Category 3		
GHS label elements, including	precautionary statements		
Signal word	No signal word.		
Hazard statements	H412 - Harmful to aquatic life with long lasting effects.		
Precautionary statements			
Prevention	P273 - Avoid release to the environment.		
Response	Not applicable.		
Storage	Not applicable.		
Disposal	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.		
Other hazards which do not result in classification	Defatting to the skin.		

Section 3. Composition/information on ingredients

Substance/mixture

Mixture

Highly refined base oil (IP 346 DMSO extract < 3%). Proprietary performance additives.

Hazardous ingredients

Product name Magna SW 32			Product code 468967	-KR01 Page: 1/9
Version 1	Date of issue 27/08/2015.	Format Republic of Korea		Language ENGLISH
		Build 5.0.1	(South Korea)	(ENGLISH)

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Ingredient name	Synonym	CAS number	%
Base oil - unspecified 2,6-ditert-butyl-p-cresol	- Phenol, 2,6-bis(1, 1-dimethylethyl)-4-methyl-; 2,6-Bis(1,1-dimethylethyl) -4-methylphenol; 2,6-Di-tert- butyl-4-methylphenol; Butylated hydroxytoluene; p-Cresol, 2,6-di-tert-butyl-; 4-Methyl-2,6-di-tert-butyl- phenol; Dibutylated hydroxytoluene; BHT; BUTYLATED HYDROXYTOLUENE (BHT); 2,6-Di-t-butyl- 4-methylphenol	- 128-37-0	96.45 0.5

Non-hazardous ingredients

Ingredient name	Synonym	CAS number	%
Trade secret.	Trade secret.	Trade secret.	3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Eye contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.	
Skin contact	Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.	
Inhalation	If inhaled, remove to fresh air. Get medical attention if symptoms occur.	
Ingestion	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Get medical attention if adverse health effects persist or are severe.	
Indication of immediate medica	l attention and special treatment needed, if necessary	
Specific treatments	No specific treatment.	
Notes to physician	Treatment should in general be symptomatic and directed to relieving any effects.	
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.	

Section 5. Fire-fighting measures

Extinguishing media	
Suitable	Use foam or all-purpose dry chemical to extinguish.
Not suitable	Do not use water jet.

Product name M	agna SW 32	I	Product code 4	168967-KR01	Page: 2/9
Version 1	Date of issue 27/08/2015.	Format Republic of Korea		orea Language	ENGLISH
		Build 5.0.1	(South Korea)		(ENGLISH)

Section 5. Fire-fighting measures

Specific hazards arising from the chemical	Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects.
Hazardous thermal decomposition products	Combustion products may include the following: carbon dioxide carbon monoxide
Special protective equipment for fire-fighters	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Special protective actions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling. Contact emergency personnel.	
Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.	
Methods and material for contai	nment and cleaning up	
Small spill	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.	
Large spill	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Contaminated absorbent material may pose the same hazard as the spilt product. Dispose of via a licensed waste disposal contractor.	

Section 7. Handling and storage

Precautions for safe handling

Protective measuresPut on appropriate personal protective equipment (see Section 8). Avoid breathing
vapour or mist. Avoid contact of spilt material and runoff with soil and surface
waterways. Avoid contact with eyes, skin and clothing. Do not ingest. Empty
containers retain product residue and can be hazardous. Keep in the original
container or an approved alternative made from a compatible material, kept tightly
closed when not in use. Do not reuse container.Advice on general
occupational hygieneEating, drinking and smoking should be prohibited in areas where this material is
handled, stored and processed. Wash thoroughly after handling. Remove
contaminated clothing and protective equipment before entering eating areas. See
also Section 8 for additional information on hygiene measures.

Product name Ma	agna SW 32	F	Product code 46	68967-KR01	Page: 3/9
Version 1	Date of issue 27/08/2015.	Forma	at Republic of Ko	rea Language	ENGLISH
		Build 5.0.1	(South Korea)		(ENGLISH)

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters				
Ingredient name		Exposure limits		
Base oil - unspecified		ACGIH TLV (United States). TWA: 5 mg/m ³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction		
Distillates (petroleum), hydrotreated, heavy paraffinic		ACGIH TLV (United States). TWA: 5 mg/m ³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction		
2,6-ditert-butyl-p-cresol		Ministry of Labor (Republic of Korea). TWA: 2 mg/m ³ 8 hours. Issued/Revised: 1/2008		
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.			
Appropriate engineering controls	All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained. Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards. Provide exhaust ventilation or other engineering controls to keep the relevant			
	airborne concentrations below their respective occupational exposure limits. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.			
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.			
Personal protective equipmen	<u>t</u>			
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.			
Eye protection	Safety glasses with side shields.			

Product name Magna SW 32		I	Product code 4689	967-KR01	Page: 4/9
Version 1	Date of issue 27/08/2015.	Format Republic of Korea Language		ENGLISH	
		Build 5.0.1	(South Korea)		(ENGLISH)

Section 8. Exposure controls/personal protection

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Hand protection	Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.
Skin protection	Use of protective clothing is good industrial practice. Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	Liquid.
Colour	Yellow. [Light]
Odour	Not available.
Odour threshold	Not available.
рН	Not available.
Melting/freezing point	Not available.
Boiling point/boiling range	Not available.
Flash point	Closed cup: 204°C (399.2°F) [Pensky-Martens.] Open cup: 216°C (420.8°F) [Cleveland.]
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower and upper explosive (flammable) limits	Not available.
Solubility	insoluble in water.
Vapour density	Not available.
Relative density	Not available.
Density	<1000 kg/m³ (<1 g/cm³) at 20°C
Partition coefficient: n- octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Kinematic: 32 mm ² /s (32 cSt) at 40°C

Product name Magna SW 32			Product code 46896	7-KR01 Page: 5/9
Version 1	Date of issue 27/08/2015.	Format Republic of Korea Language		Language ENGLISH
		Build 5.0.1	(South Korea)	(ENGLISH)

Section 10. Stability and reactivity

The product is stable.
Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerisation will not occur.
Avoid all possible sources of ignition (spark or flame).
Reactive or incompatible with the following materials: oxidising materials.
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on the likely route	Information on the likely routes of exposure				
Inhalation	Vapour inhalation under ambient conditions is not normally a problem due to low vapour pressure.				
Ingestion	No known significant effects or critical hazards.				
Skin contact	Defatting to the skin. May cause skin dryness and irritation.				
Eye contact	No known significant effects or critical hazards.				
Symptoms related to the phys	ical, chemical and toxicological characteristics				
Inhalation	May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.				
Ingestion	No specific data.				
Skin	Adverse symptoms may include the following: irritation dryness cracking				
Eyes	No specific data.				
Delayed and immediate effects	s and also chronic effects from short and long term exposure				
Potential chronic health effect	<u>s</u>				
General	No known significant effects or critical hazards.				
Inhalation	Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.				
Ingestion	Ingestion of large quantities may cause nausea and diarrhoea.				
Skin contact	Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/ or dermatitis.				
Eye contact	No known significant effects or critical hazards.				
Carcinogenicity	No known significant effects or critical hazards.				
Mutagenicity	No known significant effects or critical hazards.				
Teratogenicity	No known significant effects or critical hazards.				
Developmental effects	No known significant effects or critical hazards.				
Fertility effects	No known significant effects or critical hazards.				
Aspiration hazard					
Not available.					
Other information	Not available.				

Product name Magna SW 32		Product code 468967-KR01		67-KR01 Page: 6/9	
Version 1	Date of issue 27/08/2015.	Format Republic of Korea Lan		Language ENGLISH	
		Build 5.0.1	(South Korea)	(ENGLISH)	

Section 12. Ecological information

Environmental effects	This material is harmful to aquatic life with long lasting effects.		
Persistence/degradability	Expected to be biodegradable.		
Mobility in soil	Spillages may penetrate the soil causing ground water contamination.		
Bioaccumulative potential	This product is not expected to bioaccumulate through food chains in the environment.		
Other adverse effects	No known significant effects or critical hazards.		
Other ecological information	Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.		

Section 13. Disposal considerations

Disposal methods	The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non- recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Disposal precautions	This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	IMDG	ΙΑΤΑ
A. UN number	Not regulated.	Not regulated.
B. UN proper shipping name	-	-
C. Transport hazard class(es)	-	-
D. Packing group	-	-
E. Environmental hazards	No.	No.
F. Additional information	-	-

Special precautions for user Not available.

Product name Magna SW 32			Product code 468967	7-KR01 Page: 7/9
Version 1	Date of issue 27/08/2015.	Format Republic of Korea Language ENG		Language ENGLISH
		Build 5.0.1	(South Korea)	(ENGLISH)

Section 15. Regulatory information

Regulation according to ISHA ISHA Article 37 None of the components are listed. **ISHA Article 38** None of the components are listed. **Exposure Limits of Chemical Substances and Physical Factors** The following components have an OEL: Base oil - unspecified Distillates (petroleum), hydrotreated, heavy paraffinic 2,6-ditert-butyl-p-cresol **Exposure Standards** None of the components are listed. established for Harmful **Factors** Harmful Factors Subject to None of the components are listed. **Work Environment Measurement** Harmful Factors Subject to The following components are listed: Oil mist, mineral **Special Health Check-up Hazardous Substances** None of the components are listed. **Subject to Control Regulation according to TCCA TCCA Toxic chemicals** Not applicable **TCCA Observational** None of the components are listed. chemicals **TCCA Article 32 (Banned)** None of the components are listed. **TCCA Article 32** None of the components are listed. (Restricted) **TCCA Article 17 (TRI)** None of the components are listed. **Dangerous Materials** Class: Class 4 - Flammable Liquid **Safety Management Act** Item: 6. Class 4 petroleums Threshold: 6000 L Danger category: III Signal word: Contact with sources of ignition prohibited Wastes regulation Dispose of contents and container in accordance with all local, regional, national and international regulations. Regulation according to other foreign laws Japan inventory (ENCS) All components are listed or exempted. **United States inventory** Not determined. (TSCA 8b) **REACH Status** For the REACH status of this product please consult your company contact, as identified in Section 1. Australia inventory (AICS) All components are listed or exempted. **Canada inventory** All components are listed or exempted. **China inventory (IECSC)** All components are listed or exempted. Korea inventory (KECI) All components are listed or exempted. **Philippines inventory** All components are listed or exempted. (PICCS) **Taiwan inventory (CSNN)** Not determined.

Product name Magna SW 32			Product code 46896	67-KR01 Page: 8/9
Version 1	Date of issue 27/08/2015.	Format Republic of Korea Langu		Language ENGLISH
		Build 5.0.1	(South Korea)	(ENGLISH)

Section 16. Other information

History					
Date of issue/Date of revision	27/08/2015.				
Date of previous issue	No previous validation.				
Prepared by	Product Stewardship				
Key to abbreviations	 AMP = Acceptable Maximum Peak ACGIH = American Conference of Governmental Industrial Hygienists, an agency that promulgates exposure standards. ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail ADG Code = Australian Code for the Transport of Dangerous Goods by Road and Rail CAS Number = Chemical Abstracts Service Registry Number HAZCHEM Code = Emergency action code of numbers and letters which gives information to emergency services. Its use is required by the ADG Code for Dangerous Goods in bulk. ICAO = International Civil Aviation Organization. IATA = International Air Transport Association, the organization promulgating rules governing shipment of goods by air. IMDG = International Maritime Organization Rules, rules governing shipment of goods by water. IP 346 = A chemical screening assay for dermal toxicity. The European Commission has recommended that Method IP 346 be used as the basis for labelling certain lubricant oil base stocks for carcinogenicity. The EU Commission has stipulated that the classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346. (See Note L, European Commission Directive 67/548/EEC as amended and adapted.) DMSO is a solvent. NOHSC = National Occupational Health & Safety Commission, Australia TWA = Time weighted average STEL = Short term exposure limit UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods. TCCA = Toxic Chemical Control Act GHS = Global Harmonized System ISHA = Industrial Safety and Health Act 				
Indicates information that	t has changed from previously issued version.				

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

Product name Magna SW 32		Product code 468967-		967-KR01	Page: 9/9	
Version 1	Date of issue 27/08/2015.	Format Republic of Korea		a Languag	Language ENGLISH	
		Build 5.0.1	(South Korea)		(ENGLISH)	