CARTER SH

Engranes industriales

Aceite sintético (PAO) para engranes cerrados

APLICACIONES

Cajas de engranes, rodamientos y acoplamientos

CARTER SH ha sido especialmente diseñado para la lubricación de engranajes cerrados industriales funcionado bajo las más extremas condiciones de carga y temperatura (muy altas y bajas temperaturas).

- Engranes cilíndricos de ejes paralelos (engranes rectos y helicoidales)
- Rodamientos de mucha carga.

ESPECIFICACIONES

Especificaciones internacionales

- DIN 51517 Part 3 = group CLP
- NF-ISO 6743-6 categoria CKD
- AISI 224
- CINCINNATI MILACRON
- DAVIS BROWN
- FLENDER
- USINOR FT 161
- MÜLLER WEINGARTEN
- AGMA 9005- E02

VENTAJAS

- Alta protección (a altas y bajas temperaturas) al desgaste por micropitting (GFT –clase: alto)
- Excelentes características de EP protección contra altas cargas
- Elevado índice de viscosidad natural, estable al cizallamiento mecánico
- Muy alto punto de congelación, apto para muy bajas temperaturas.
- Muy buena estabilidad frente a la oxidación, apto para altas temperaturas y larga vida útil aumentada entre 2 a 4 veces.
- Neutralidad respecto a las juntas y aleaciones de cobre.

SEGURIDAD Y SALUD EN EL TRABAJO

- **PRECAUCION** incompatible con poliglicoles

Total México S.A de C.V
Av. 8 de Julio 2462, Zona Industrial, CP 44940. Guadalajara, Jalisco, México
Conmutador. (0133) 3812-2300, Fax. (0133) 3810-6264
México (0155) 5311-3161 - Monterrey (0181) 8334-6381
www.total.com.mx

CARTER SH

Engranes industriales

CARACTERISTICAS

CARACTERISTICAS	METODO	CARTER SH					
		150	220	320	460	680	1000
Densidad a 15 °C, kg/m3	ISO 3675	856.5	859.7	861.7	863.3	864.9	869.5
Viscosidad a 40°C, cSt	ISO 3104	147.9	220.1	313.8	454.7	676	997.8
Viscosidad a 100 °C, cSt	ISO 3104	19.4	26.2	34.6	46	64.0	85.6
Indice de viscosidad	ISO 2909	150	152	155	160	165	169
Punto de inflamación °C	ISO 2592	235	237	233	231	237	229
Punto de congelación °C	ISO 3016	-48	-45	-42	-42	-33	-27
FZG A/8.3/90	DIN 51352/2	>13	>13	>13	>13	>13	>13
FZG Micropitting	DIN 51354/2		10+	10+	10+	10+	10+

CARTER SH_V25092014

Los valores típicos mostrados representan un promedio de resultados

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Safety Data Sheet

PRODUCT LABELS

LABELLING (standard or EU):	Not concerned
R-phrases :	None
S-phrases :	None
Other :	- Contains: Long chain alkyl amine. Can start an allergic reaction.
TRANSPORT LABELLING:	Not applicable.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

Name of the product :	CARTER SH 220
Code No. :	1JQ
Product application :	Lubricant for gears
Supplier :	TOTAL ESPAÑA SAU Ribera del Loira 46. 28042 MADRID ESPANA Tel: 00 34 91 7220840 Fax: 00 34 91 7220860 rm.es-atencion-clientes@total.com
Emergency telephones :	ORFILA / Tel : 01.45.42.59.59
See local details at end of sheet :	
Manufacturer :	TOTAL LUBRIFIANTS 562, Avenue du Parc de l'Ile 92029 Nanterre Cedex - France Tel: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71 rm.msds-lubs@total.com

2. HAZARDS IDENTIFICATION

The product is not classified as dangerous in accordance with directive 1999/45/EC.

Health effects :	This product does not present a danger of intoxication. May cause allergic reactions
Environmental impact :	Do not discharge this product into the environment.
Physico-chemical hazards :	No specific risk of fire or explosion under normal conditions of use

3. COMPOSITION/INFORMATION ON INGREDIENTS

PREPARATION

Chemical nature :	Product with a synthetic oil base

Substances presenting a health hazard	EC No.	CAS No.	Content	Symbol(s)	R-phrases
Alkyl phosphonate			<0,2 %	Xi ,N	R-38, 41, 51/53
Long chain alkyl amine			<0,2 %	T ,C ,Xn ,N	R-22, 23/24, 34, 43, 48/20, 50/53

See section 16 for explanations of R-phrases :

4. FIRST AID MEASURES

IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.

Inhalation : Inhalation of heavy concentrations of vapour, fumes or spray, may cause mild irritation of the throat.
Remove victim to fresh air and allow to rest.

Ingestion : Give nothing to drink
Do not induce vomiting to avoid the risk of aspiration into the respiratory tract.
Possible risk of vomiting and diarrhoea.

Skin contact : Immediately remove all soiled or stained clothing.
Wash the affected area immediately and repeatedly with soap and water.

Eye contact : Keep eyes open and rinse immediately and repeatedly with water for at least 15 minutes.

Aspiration : If the product is believed to have entered the lungs (in case of vomiting, for example), take the person to hospital for immediate care.

5. FIRE FIGHTING MEASURES

See heading 9

Extinguishing media : - suitable:
Foam, carbon dioxide (CO2), powder.
- not recommended:
Do not use water jets (stick jets) for extinguishing fire, as this may help the spread of flames.

Specific hazards : Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, sulpher oxides, aldehydes etc., and soot. These are highly dangerous if inhaled.
Vapours can build explosive mixtures with air.
Vapours are heavier than air and may spread on the ground to sources of ignition.

Protective measures for firefighters : Insulated breathing apparatus must be worn in confined premises with heavy concentrations of fumes and gases.

Other : All combustion residues and contaminated water from fire-fighting should be disposed of according to local regulations.

6. ACCIDENTAL RELEASE MEASURES

See sections 8 and 13.

Personal protection : Ensure good ventilation.
Remove sources of ignition. Do not smoke.

After spillage / leakage :	- On land: Surfaces on which the product has been spilled may become slippery. Do not allow the product to enter sewers or rivers or contaminate the soil. Recover with mechanical means such as pumps and skimmers. Contain and collect the spilled product with sand or any other inert absorbant material. - On water: Floating absorbant material, then mechanical recovery. If the product is spilt into rivers or sewers, notify the authorities of the possible presence of surface effluent.

7. HANDLING AND STORAGE

HANDLING :

Prevention of user exposure :	Ventilate extensively if the formation of vapours, fumes, mists or aerosol is a risk. Make all the necessary arrangements in order to reduce exposure risk, notably to products in use or to wastes. Keep away from combustible substances; keep away from food and beverages.
Prevention of fire and explosion :	Empty containers may contain flammable or explosive vapours. There is a fire hazard associated with rags, paper or any other material used to remove spills which become soaked with product. Avoid accumulation of these: they are to be disposed off safely after use. Handle away from any source of ignition and heat.
Precautions :	Avoid static electricity build up with connection to earth. Set up machinery and equipment so as to avoid the risk of accidental spills or splashes onto hot machine parts and electrical contacts (on joint failure, for example).

STORAGE :

Technical measures :	Make the necessary arrangements to prevent water and soil pollution.
Storage precautions :	Store at ambient temperature, protected against contact with water and moisture, and away from any source of ignition. Keep containers closed when not in use - To be avoided: Do not store exposed to the elements.
Incompatible products :	A dangerous reaction may occur with strong oxidizing agents.
Packaging materials :	- Recommended: Use only hydrocarbon-resistant containers, joints, pipes, etc. Keep in original container if possible. Otherwise, transfer all indications on the regulatory label to the new container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Technical measures :	Use the product in a properly ventilated atmosphere. When working on enclosed place (tanks, reservoirs...), make sure that atmosphere is not suffocating and/or wear recommended equipment.
Respiratory protection :	In case of vapours or sprays formation: Combined gas cartridge (organic gases and dust, filter A/P2).
Hand protection :	Impermeable hydrocarbon-proof gloves. recommended material: nitrile , neoprene. The break through times of the same type of glove of different manufacturers can be very different - even if the layer thickness is similar. Therefore the break through times have to be found out from the manufacturer of the protective gloves themselves. The demands on the gloves are determined by the conditions in practice (e.g. multiple use, mechanical load, temperature, strength and duration of exposition). Before choosing suitable gloves, it is recommended that the user tests the gloves.

Eye protection :	Goggles, in case of risk of splashing.
Skin and body (other than the hands) protection :	Depending on the requirements, face mask, boots, product resistant clothing, safety shoes (drum handling). Don't wear rings, watches or anything similar which can retain the product and may give rise to skin conditions.
Hygienic work practices :	Avoid prolonged and repeated contact with the skin, especially with used or waste product If the product comes into contact with the skin, wash the affected area immediately and copiously with soap and water. Do not use abrasives, solvents or fuels. Immediately remove all soiled or stained clothing. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets. Do not eat, drink or smoke whilst handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	Liquid
Colour :	Yellow to amber.
Odour :	Characteristic
Density/specific gravity :	850 - 860 kg/m3 Temperature (°C) 15
Flash point :	> 200 °C OC (Open cup).
Température d'auto-inflammation :	> 250 ºC (ASTM E 659-78)
Comments on autoignition temperature :	This temperature may be significantly lower under particular conditions (slow oxidation on finely divided materials...).
Solubility :	- in water : Insoluble and immiscible. - in organic solvents : Soluble in many common solvents.
Partition coefficient (log Pow) :	Log Pow > 6 Temperature (°C) 20
Viscosity :	220 mm2/s Temperature (°C) 40

10. STABILITY AND REACTIVITY

Stability :	The product is stable at normal storage, handling and use temperatures.
Conditions to avoid :	Heat (temperatures above flash point), sparks, ignition points, flames, static electricity
Materials to avoid :	Avoid contact with strong oxidizers
Hazardous decomp. products :	Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

11. TOXICOLOGICAL INFORMATION

Acute toxicity / Local effect :

Inhalation, comments:	Not classified according to the criteria of classification in force. Inhalation of high concentrations of vapour or aerosols may cause irritation of the upper respiratory tract.
Skin contact, comments:	Not classified according to the criteria of classification in force.
Ingestion, comments:	In case of ingestion of small quantities, no important effect observed. in case of ingestion of larger amounts: abdominal pain, diarrhea, ...

CHRONIC TOXICITY OR LONG-TERM TOXICITY :

Skin contact :	Characteristic skin affections (oil blisters) may develop following prolonged and repeated exposure through contact with stained clothing
Sensitization :	Contains a sensitising substance May cause an allergic reaction.

12. ECOLOGICAL INFORMATION

Comments about ecotoxicity :	Experimental data on the finished product are not available. It is considered to present a little danger for aquatic life. no information available for used product
Mobility :	- Air: there is a slow loss by evaporation. - Soil: Given its physical and chemical characteristics, the product generally shows little mobility in the ground. - Water: The product is insoluble; it spreads on the surface of the water
Persistence and degradability :	No experimental information about the finished product. However the "synthetic oil" fraction of the product is intrinsically biodegradable. Some components of the product may not be biodegradable.

13. DISPOSAL CONSIDERATIONS

Waste disposal :	Dispose of in a safe manner, in accordance with local regulations. If need be, collection by an authorised waste contractor and regeneration or incineration at an approved installation.
Waste class :	The waste classification is dependant on the composition of the product at the time of disposal. The waste classification mentioned here represents only a recommendation. The waste producer is responsible for the correct specification of the waste. The specification of the waste classification should be in arrangement with the authorised waste disposal company. Industrial waste number EU 13 02 06
Disposal of contaminated packaging :	Proceed in compliance with the prevailing regulations.

14. TRANSPORT INFORMATION

Not concerned by the transport regulations below.

Road (ADR) / Rail (RID) :

Transport by barge (ADNR) :

Marine (IMO-IMDG) :

Air (ICAO/IATA) :

15. REGULATORY INFORMATION

Not applicable

Risk phrases :	None
Safety phrases :	None
Other :	- Contains: Long chain alkyl amine May produce an allergic reaction
EU directives :	Hazardous preparations directive 1999/45/EC modified (Directive 2001/60/EC).

16. OTHER INFORMATION

This safety data sheet complies with article 31 of the REACH directive 1907/2006/EC

Explanations of R-phrases in section 2 :	R-38 Irritating to skin. R-41 Risk of serious damage to eye. R-51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R-22 Harmful if swallowed. R-23/24 Toxic by inhalation and in contact with skin. R-34 Causes burns. R-43 May cause sensitization by skin contact. R-48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation. R-50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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Supersedes the data sheet of:	2010-02-08

* Information revised since the previous version of the SDS :

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