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

Name of the product: CARTER SH 460
Code No.: 1JS
Product application: Lubricant for gears
Supplier: TOTAL UK LIMITED
40 Clarendon Road
Watford, Hertfordshire. WD17 1TQ
UNITED KINGDOM
Tel: 01923 694000
Fax: 01923 694400
rm.gb-msds@total.co.uk

*Contact: Specific Product Related Info: 01977 636200
*Emergency telephones: ORFILA / Tel: 01.45.42.59.59
Poisons Advice Centre: NHS Direct: 0845 46 47 / Textphone: 0845 606 46 47
Burns Units: NHS Direct: 0845 46 47 / Textphone: 0845 606 46 47
See local details at end of sheet:
Manufacturer: TOTAL UK LIMITED
40 Clarendon Road
Watford, Hertfordshire. WD17 1TQ
UNITED KINGDOM
Tel: 01923 694000
Fax: 01923 694400
rm.gb-msds@total.co.uk

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
Safety Data Sheet

Product name: CARTER SH 460

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, sulphur 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: 860 - 870 kg/m3

Flash point: > 200 °C OC (Open cup).

Température d'auto-inflammation: > 250 °C (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

Viscosity: 414 - 506 mm²/s

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
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Product name: CARTER SH 460
SDS n°: 30562-44
Version: 1.01
This sheet supersedes the one dated: 2004-09-30

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

UN N°: not applicable
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**Product name**: CARTER SH 460

<table>
<thead>
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**Road (ADR) / Rail (RID) :**

**Transport by barge (ADNR) :**

**Marine (IMO-IMDG) :**

**Air (ICAO/IATA) :**

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### 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).

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### 16. OTHER INFORMATION

HSE Infoline: 08701 545500 / Minicom: 02920 808537

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.

*Revision date: 2010-05-26
*Supersedes the data sheet of: 2004-09-30
* Information revised since the previous version of the SDS : LT-DS-5352
*Safety Data Sheet status : Approved.

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 fulfill 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.