SECTION 1  Identification of the substance or preparation and of the company/undertaking

1.1 Product identifier
   - Product Name: FORE & AFT
   - Product Part Number: 571554 (25 liter)

1.2 Relevant identified uses of the substance or mixture and uses advised against
   - Cleaning agent
   - Degreaser

1.3 Details of the supplier of the safety data sheet

   Head Office:
   Wilhelmsen Ships Service AS
   Strandveien 20, N1324 Lysaker,
   Norway Tel: (47) 6349 440 35

   Supplier:
   Wilhelmsen Ships Service AS
   Willem Barentszstraat 50
   3165AB Rotterdam
   Telephone: +31 4877 777
   Fax: +31 4877 888
   The Netherlands

   Other suppliers SEE SECTION 16!!!

   For quotations contact your local Customer Services
   - Responsible Person:
     Product HSE Manager, Tel.: +31 10 4877775
     Email: WSS.GLOBAL.SDSINFO@wilhelmsen.com

   1.4 Emergency telephone number

   -ONLY TO BE USED IN CASE OF AN INCIDENT-
     NCEC:+44 1865 407333, CHEMTREC (800) 424 9300
     American Chemistry Council +1 703 527 3887,
     Greece +30 210 7793777Australia: +61 3 9630 0998
     Giftinformasjonsentraelen in Norway Tel.: +47 22591300
     Wilhelmsen Ships Service, Melbourne, AUSTRALIA Emergency 24hrs: +61 3 9630 0998

   **FOR QUOTATIONS PLEASE CONTACT YOUR LOCAL CUSTOMER SERVICES**

SECTION 2  Hazards identification

2.1 Classification of the substance or mixture
   - This Safety Data Sheet is provided in compliance with The Dangerous Substances Directive (67/548/EEC)
   - Symbols: Xi
   - Irritating to eyes (R36)
   - Regulations 1272/2008/EEC. Classification, labeling and packing of dangerous substances and preparations
   - Signal Word: Warning
SECTION 2  Hazards identification (....)
- Eye Dam. 1
- Causes serious eye irritation (H319).

2.2 Label elements
- Signal Word: Warning
- Contains:
  - Disodiummetasilicate
  - sodium carbonate
  - Primary C9-C11 alcoholethoxylate
  - Alkylglucosid
  - 2-(2-Butoksyethoxy)ethanol
- Hazard phrases
  Causes serious eye irritation (H319).
- Precautionary Phrases
  Wear protective gloves/protective clothing/eye protection/face protection (P280).
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P305+P351+P338).
  If eye irritation persists: Get medical advice/attention (P337+P313).

2.3 Other hazards
- Not applicable
- Odour: Odourless
- Appearance: Liquid, blue, soluble in water
- Not a PBT according to REACH Annex XIII

SECTION 3  Composition/information on ingredients
3.1 Mixtures
- Disodiummetasilicate
  Concentration: 0-1%
  CAS Number: 6834-92-0
  EC Number: 229-912-9
  R/H Phrases: R34, R37 - H290, H314, H335
  Symbols: C, GHS05, GHS07
- Sodium Carbonate
  Concentration: 1-5%
  CAS Number: 497-19-8
  EC Number: 207-838-8
  R/H Phrases: R36 - H319
  Symbols: Xi, GHS07
  Categories: Eye Irrit. 2
- Primary C9-C11 alcoholethoxylate
  Concentration: 1-5%
  CAS Number: 68439-46-3
  EC Number: -
  R/H Phrases: R38, R41 - H315, H318
  Symbols: Xi, GHS05
  Categories: Skin Irrit. 2, Eye Dam. 1
- Alkylglucocide
  Concentration: 1-5%
SECTION 3 Composition/information on ingredients

- CAS Number: 161074-93-7
- EC Number: 500-529-1
- R/H Phrases: R41 - H318
- Symbols: Xi, GHS05
- Categories: Eye Dam. 1
- 2-2(butoxyethoxy)ethanol
  - Concentration: 1-5%
- CAS Number: 112-34-5
- EC Number: 203-961-6
- R/H Phrases: R36 - H319
- Symbols: Xi, GHS07
- Categories: Eye Irrit. 2

SECTION 4 First aid measures

4.1 Description of first aid measures
- IF ON SKIN: Wash with plenty of soap and water (P302+P352).
- Contaminated clothing should be laundered before reuse
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P305+P351+P338).
- Seek medical attention if irritation persists
- IF SWALLOWED: rinse mouth. Do NOT induce vomiting (P301+P330+P331).
- Give water or milk to drink
- Obtain immediate medical attention
- IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing (P304+P341).
- Seek medical attention if irritation persists

4.2 Most important symptoms and effects, both acute and delayed
- Mildly irritating to eyes

4.3 Indication of any immediate medical attention and special treatment needed
- No information available

SECTION 5 Fire-fighting measures

5.1 Extinguishing media
- Not flammable. In case of fire use extinguishing media appropriate to surrounding conditions

5.2 Special hazards arising from the substance or mixture
- Smoke from fires is irritating

5.3 Advice for firefighters
- Smoke from fires is irritating
- Wear Positive-Pressure Breathing Apparatus

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Wear protective clothing as per section 8

6.2 Environmental Precautions
- No special precautions are required for this product
SECTION 6  Accidental release measures (....)

6.3 Methods and material for containment and cleaning up
- Absorb spillage in inert material and shovel up
- Flush spill area with copious amounts of water

6.4 Reference to other sections
- See Section 13

SECTION 7  Handling and storage

7.1 Precautions for safe handling
- Wear protective clothing as per section 8
- Do not get in eyes, on skin, or on clothing (P262).
- Eyewash bottles should be available

7.2 Conditions for safe storage, including any incompatibilities
- Store in a dry place. Store in a closed container (P402+P404).
- Store in a well-ventilated place (P403).
- Protect from frost

7.3 Specific end use(s)
- Contact supplier for further information

SECTION 8  Exposure controls/personal protection

8.1 Control parameters
- CAS:112-34-5
  Lowest value: TLV (TWA) 10 ppm, 50mg/m³
  European Union: TLV (TWA) 10 ppm, 67.5 mg/m³

8.2 Exposure controls
- No special ventilation is required unless the product is used in a spray form

8.3 Occupational exposure controls
- Wear suitable protective clothing, including eye/face protection and gloves (plastic or rubber are recommended)
- Penetration time of glove material:
  The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- No respiratory protection is required unless subject to contact with substance mist

SECTION 9  Physical and chemical properties

9.1 Information on basic physical and chemical properties
- Odour: Odourless
- Appearance: Liquid, blue, soluble in water
- pH 11-12 at 100% concentration
- Boiling point >100 °C to 760 °C
- Vapour pressure - not applicable
- Vapour density - not applicable
- Density 1.03 g/cm³ at 20 deg C

9.2 Other information
- None
SECTION 10  Stability and reactivity

10.1 Reactivity
- This article is considered stable under normal conditions

10.2 Chemical stability
- Considered stable under normal conditions

10.3 Possibility of hazardous reactions
- No hazardous reactions known if used for its intended purpose

10.4 Conditions to avoid
- Avoid overheating

10.5 Incompatible materials
- None

10.6 Hazardous Decomposition Products
- No hazardous decomposition products known

SECTION 11  Toxicological information

11.1 Information on toxicological effects
- LD50 (oral, rat) (Alcoholetoxylate) >300 mg/kg
- LD50 (oral, rat) (Alkylglucoside) 2000-5000 mg/kg

11.2 Contact with eyes
- May cause irritation

11.3 Contact with skin
- In cases of severe exposure, irritation may develop

11.4 Ingestion
- The ingestion of significant quantities may cause gastro-intestinal disturbances

11.5 Inhalation
- Vapours or aerosols may cause irritation of eyes, nose and respiratory tract

SECTION 12  Ecological information

12.1 Toxicity
- LC50 (fish) (alcoholetoxylate) 1-10 mg/l (96 hr)
- LC50 (fish) (Alkylglucoside) 558 mg/l (96 hr)
- LC50 (fish) (2-(2-buthoxyethoxy)ethanol) >2500 mg/l (96 hr)
- Biodegradability. OECD-test. 28 days >60 % (Alkyl glucoside)
- Biodegradability. OECD-test. 28 days >60 % (2-(2-Buthoxyethoxy)etanol)
- “In general, this cleaning agent poses little danger to the environment, its main ingredients will either dissolve rapidly and dissociate in water or are readily/inherently biodegradable.”
- This product does not contain ingredients which are classified in the EU as dangerous for the environment.

12.2 Persistence and degradability
- The components in this product are readily biodegradable.

12.3 Bioaccumulation Potential
- Bioaccumulation of the components in this product is insignificant.

12.4 Mobility in soil
- Completely soluble in water

12.5 Results of PBT and vPvB assessment
- Not a PBT according to REACH Annex XIII
SECTION 12  Ecological information (....)

12.6 Other Adverse Effects
- No information available

SECTION 13  Disposal considerations

13.1 Waste treatment methods
- Do not discharge into drains or the environment, dispose to an authorised waste collection point
- Disposal should be in accordance with local, state or national legislation

13.2 Classification
- EU Waste class: 07 06 01

SECTION 14  Transport information

Not classified as hazardous for transport

14.1 UN
- UN No.: Not applicable
- Proper Shipping Name: Not applicable
- Hazard Class: Not applicable
- Packing Group: Not applicable

14.2 Environmental hazards
- Not Classified

14.3 Special precautions for user
- Not classified as hazardous for transport

14.4 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code
- Not applicable

14.5 Road/Rail (ADR/RID)
- ADR UN No.: Not applicable
- Proper Shipping Name: Not applicable
- ADR Hazard Class: Not applicable
- ADR Packing Group: Not applicable

14.6 Sea (IMDG)
- IMDG UN No.: Not applicable
- Proper Shipping Name: Not applicable
- IMDG Hazard Class: Not applicable
- IMDG Pack Group.: Not applicable
- IMDG EmS: Not applicable

14.7 Air (ICAO/IATA)
- ICAO Un No.: Not applicable
- Proper Shipping Name: Not applicable
- ICAO Hazard Class: Not applicable
- ICAO Packing Group: Not applicable

14.8 DOT / CFR (US Department of Transportation)
- Identification Number: Not applicable
- DOT Proper Shipping Name: Not applicable
- DOT Labels: Not applicable
- Product RQ (lbs): Not applicable

SECTION 15  Regulatory information
SECTION 15 Regulatory information (....)

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- This composition meets the criteria for not being harmful to the marine environment according to MARPOL Annex V and may be discharged into the sea when used to clean cargo holds and external surfaces on ships.
- Refer to The Dangerous Substances Directive (67/548/EEC)
- Regulations 1272/2008/EC. Classification, labeling and packing of dangerous substances and preparations
- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006-453/2010
- Does not contain phosphate.
- This product contains Disodiummetasilicate in a concentration 1-2 %.
  Disodiummetasilicate act as a buffer and “holds” pH even when amounts are low. Testing due to OECD 431 "In vitro skin corrosion" - verifies that this product is not corrosive.

15.2 Chemical Safety Assessment
- None

SECTION 16 Other information


Composition information in accordance with EC Regulation 648/2004 of the European Parliament and of the Council of 31st March 2004 on detergents:

| Nonionic surfactants | 5-15 % |
| Amphoteric surfactants | <5 % |

The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents

The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer

The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements and does not signify any warranty with regard to the product's properties
SECTION 16   Other information (....)

The most up-to-date version of this MSDS can be found on www.wilhelmsen.com/shipsservice

OTHER CONTACT INFORMATION MAJOR CHEMICAL OFFICES

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Telephone daytime: (+1) 718 815 1310 Fax: (+1) 718 233 3268
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