

NOTICE INVITING TENDER

Offers are invited on behalf of Hooghly Cochin Shipyard Limited (Hooghly CSL) from experienced vendors for the under mentioned supplies, so as to reach the undersigned on or before the scheduled tender period. Please refer Scope of Work, General Terms and Conditions and Special Terms as attached:

Details of the supplies:

Tender No.	HCSSL/OPS/SB/TEN/2025/109 dated 24.11.2025
Scope of work	Supply of various types of Oil (Lub. Oil, Hyd. Oil, Grease etc.) for 40T Tug at Hooghly CSL Nazirgunge Unit Howrah (For detailed technical specification please refer Annexure 1).
Type of Tender	Two Bid (Open Tender, Price Bid, Password Protected)
Cost of tender form	NIL
Earnest Money Deposit (EMD)	NIL
Last date & time of receipt of tender	29.11.2025 at 16:00 Hrs.
Date & time of opening of technical bid	29.11.2025 at 16:30 Hrs.
Delivery Period / Tenure of contract	The items should be delivered within 7 days from the date of issuance of PO/LOI.
Officer - in - Charge	Name : Vijay Singh Designation : Manager (SC&C) Email : vijay.singh@hooghlycsl.com Phone No : +918687069271
For Queries related to Technical/Scope of Supplies	Name: Karthik K Designation: Manager (Mech) Email: karthik.k038@hooghlycsl.com Phone No: +91 9885365874

Tender to be submitted by email only. Tender reference should be clearly indicated on the subject of the Mail. Tenders should be submitted in two separate files as PART-I "TECHNO-COMMERCIAL" & PART-II "PRICE" (Password Protected) indicating the tender number, due date of the tender in the Mail and addressed to The Assistant General Manager (Material), Hooghly Cochin Shipyard Limited, Nazirgunge Unit, Howrah.

For Hooghly Cochin Shipyard Limited

Signature and Seal of the Bidder(s)



Registered Office: Administrative Building, HCSSL Premises, Satyen Bose Road,
P.O. Danesh Shaikh Lane, Nazirgunge, Howrah, West Bengal - 711 109.
☎ +91 (33)-2688 8282 ✉ contact@hooghlycsl.com 🌐 www.hooghlycsl.com



Shipyard: Nazirgunge Unit, Satyen Bose Road, P.O. Danesh SK Lane,
P.S. Sankrail, Howrah, West Bengal - 711109
☎ +91 (33)-2955 8283



CIN : U35900WB2017GOI223197, GSTIN : 19AAECH3640L1ZD

Method of awarding the Purchase Order:

1. Supplier has to be certified dealer for subject item, necessary docs to be submitted, else the offer will not be considered.
2. Vendor should have available stock, able to deliver items within scheduled delivery period (i.e. 07 days of PO) to Hooghly CSL, Howrah.
3. L1 Bidder will be evaluated based on individual cost of the item excluding GST.

Tender to be submitted by E-mail only. No hard copy quotation of the bid will be accepted.

The tender documents can be downloaded from Hooghly-CSL Website www.hooghlycsl.com, CSL website www.cochinshipyard.in or <http://www.eprocure.gov.in>. The tender documents are available on above mentioned link. All corrigenda, addenda, amendments and clarifications to this tender will be hosted in the website www.hooghlycsl.com, www.cochinshipyard.in or <http://www.eprocure.gov.in> and not in the newspaper. Bidders shall keep themselves updated with all such developments till the last date and time of submission of tender.

Tender administration: Tender procedure/administration/evaluation including correspondences and awarding of contract will be done by M/s. Hooghly Cochin Shipyard Limited, Howrah, West Bengal.

For Hooghly Cochin Shipyard Limited

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Signature and Seal of the Bidder

Technical Specification

Annexure-1

Price Bid Format

	VARIOUS TYPE OF OILS FOR TUG PROJECT (TUG 01 and TUG 02)									
SL. NO.	DESCRIPTION	UOM	QTY. REQ. (UoM) (A)	Offered Brand for the material & Pack Size	Unit Price (B)	Total Price (C) = (A) x (B)	Transportation Cost (D)	GST (E)	TOTAL PRICE (F) = (C) + (D) + (E)	Delivery Period to Yard
1	LUBRICATION OIL FOR Z-PELLER MAIN UNIT - VISCOSITY: ISO VG100 - PTS: PTS-01124001 HYD OIL-001	LTR.	1040							
2	HYDRAULIC OIL VG 68 - PTS: PTS-01124001 HYD OIL-002	LTR.	1456							
3	GREASE - GRADE: NLGI GRADE 3 - PTS: PTS-01124001 HYD OIL-003	KG	14							
4	COMPRESSOR OIL FOR STARTING AIR COMPRESSOR - VISCOSITY GRADE: ISO VG100 / SAE 30 - PTS: PTS-01124001 HYD OIL-011	LTR	6							
5	GASOLINE FOR RESCUE BOAT - AUTOMOTIVE UNLEADED GASOLINE - OCTANE RATING: 87 - PTS: PTS-01124001 HYD OIL-012	LTR	100							
6	MIXING OIL FOR RESCUE BOAT - PTS: PTS-01124001 HYD OIL-012	LTR	2							
7	GREASE - GRADE: NLGI 2 - PTS: PTS-01124001 HYD OIL-009	KG	20							

8	HYDRAULIC OIL FOR FIFI CONTROL CABINETS - VISCOSITY: ISO VG 32 - PTS: PTS-01124001 HYD OIL-006	LTR	26							
9	LUBRICATING OIL FOR FIFI PUMP CLUTCH - VISCOSITY: ISO VG 68 - PTS: PTS-01124001 HYD OIL-006	LTR	80							
10	DIESEL OIL FOR MAIN ENGINE - CLASSIFIED FUEL OIL : DIESEL AA - PTS: PTS-01124001 HYD OIL-010	LTR.	1060							
11	GEAR OIL FOR REDUCTION BOX FOR DAVIT - VISCOSITY: ISO VG 68 - PTS: PTS-01124001 HYD OIL-003	LTR.	60							
12	LUBRICATION OIL FOR MAIN ENGINE - VISCOSITY GRADE: SAE40 - PTS: PTS-01124001 HYD OIL-008	LTR.	3360							
13	LUBRICATION OIL FOR MAIN DG - VISCOSITY: SAE 15W 40 - PTS: PTS-01124001 HYD OIL-007	LTR.	72							
14	COOLANT FOR MAIN DG. - PTS: PTS-01124001 HYD OIL-007	LTR.	60							
15	CHLORINATION AGENT - B18013, SODIUM HYPOCHLORIDE 14 - 15 % - PTS: PTS-01124001 HYD OIL-005	LTR	50							
16	DE-CHLORINATION AGENT - B18014, SODIUM BISULPHITE 12 % - PTS: PTS-01124001 HYD OIL-005	LTR	50							

	Total Amount without GST (INR)		
	Total GST Amount (INR)		
	Total Amount Including GST (INR)		
	Total Amount Including GST (IN WORDS)		

NOTE: Price Bid Instructions

1. Supplier has to be certified dealer for subject item, necessary docs to be submitted, else the offer will not be considered.
2. Vendors to indicate delivery schedule for each item.
3. Pack size to be indicated, to check number of cans required. If required Qty Tolerance: +/- 5% on Order qty may be applied.
4. Item wise L1 applicable.
5. L1 will be determined on Total value for each line item as per price bid quantity (including transportation, excl. GST)
6. Quoted rate should be FOR Hooghly CSL stores basis inclusive of all charges considering entire Scope of Work, accessories, packing, transportation & delivery Charges, if any.
7. The quoted price will be valid for a period of 3 (three) months.
8. Rate agreed upon as per quotation shall remain firm and fixed till conclusion of contract.
9. Bidders shall quote total amount in figures and in words. Corrections and additions if any must be attested / duly signed by the bidder. In the case of error in multiplication / addition in amount calculated, unit rate quoted will be considered as correct and the amount will be calculated accordingly. Conditional rebates & discounts, incomplete/ambiguous offers are likely to be rejected
10. Bidder has to submit the price bid as mentioned in the format only, otherwise bid will be rejected.

Note: “Unpriced Bid” to be submitted along with techno commercial bid with details like percentage of taxes and duties applicable and details like quoted/Nil/included/ by Hooghly CSL to be mentioned for each line item.

Signature and Seal of the Bidder

SPECIAL INSTRUCTION TO BIDDER

1. MODE OF SUBMISSION OF TENDERS

Tenders should be submitted in two separate files as **PART-I"TECHNO-COMMERCIAL" & PART-II "PRICE" (Password Protected)** indicating the tender number, due date of the tender in the subject of the Mail and addressed to The Assistant General Manager (Materials).

2. TECHNO-COMMERCIAL PART SHOULD CONTAIN FOLLOWING DETAILS: -

- I. Specification & Technical Literature, if any.
- II. Other conditions, if any
 - a. Signed and stamped copy of Scope of supply & Technical Specification (Annexure-1&2)
 - b. Unquoted Price bid (Annexure-3)
 - c. Special Instruction to Bidder (Annexure-4)
 - d. General Terms and Conditions (Annexure-5)
 - e. Make in India (MII) declaration (Annexure-6)
 - f. Restriction of bidders sharing land border with India (Annexure-7)
 - g. Deviation List (Annexure-8), if any.
 - h. SD/Bank guarantee format. (Annexure-9)

3. PRICE PART SHOULD CONTAIN FOLLOWING DETAILS: -

- a. Price against item.
- b. Taxes & duties as applicable shall be indicated.

Note:

- i. Modification or alteration of the price bid format attached is strictly prohibited. Otherwise Bid will be liable for rejection.
- ii. In case Price bid is placed inadvertently in the Techno-Commercial Part or in case Price bid is not password protected, Bid will be straightway rejected.

4. While submitting the bid, bidders are requested to note that the e-mail ID starting with following words may probable be treated as spam, not always necessary-

info, support, admin, sales, customer support, helpdesk, mail, mailadmin, billing, hello, careers.

Bidders are requested to submit the bid by e-mail (Price part password protected) only to both the following email address clearly mention the tender reference in the subject line for easy identification.

vijay.singh@hooghlycsl.com

5. The Techno-commercial part alone will be opened initially on the due date and time of tender. The price part will be opened only after evaluation of the Techno commercial part. Bidders will be intimated the date of opening of the price part, whose techno- commercial bids are acceptable in due course. Password of price bid will require to be shared at the time of price bid opening.
6. Deviations, if any, in the offer submitted from that of the tender enquiry in any form, should be clearly furnished in a separate document titled as "List of Deviations".

7. After submission of quotation / price bid opening, no unsolicited correspondence will be entertained.
8. Clarifications, either technical or commercial, should be submitted to points specially asked for only. The opportunity so given should not be used for correcting/changing amending the data/conditions already submitted with the tender.
9. Offers should be clear and unambiguous. Incomplete/ambiguous offers are likely to be rejected.
10. The bidder shall submit a signed & stamped copy of the tender document including Annexures and Enclosures along with their bid as token of acceptance of terms & Conditions.

Signature and Seal of the Bidder

GENERAL TERMS AND CONDITIONS

Sl No.	Description	Compliance by Supplier (YES/NO) In case of non-compliance, please provide remarks
1.	Tenderers are to carefully go through the terms and conditions and the technical specification of the items for which offers are called for. Tenderers have to adhere to above and supply full technical scope of items along with compliance of commercial conditions. Hooghly CSL have full right upon deviations, if any, including rejecting the partial scope/ complied offers.	
2.	Offers are to be free from overwriting. Corrections and additions, if any, must be attested. The offers shall be submitted only through email. Incomplete/ambiguous/conditional offers are likely to be rejected.	
3.	Bidders can contact Officer-in-charge of the work which is indicated in the Tender Notice for any clarification before submitting the offer. If clarifications/details are not obtained before the offer is submitted, no claim on this account will be admitted.	
4.	Technical checklist, if applicable and current general terms & conditions of enquiry duly filled and signed and technical specifications of items offered, should be submitted along with part-1 techno-commercial bid. Non receipt of the document may lead to rejection of offers.	
5.	SPECIFICATIONS: - a) Manufacturer's name, their trade mark and brand, if any, should invariably be mentioned and illustrative leaflets giving technical particulars (technical details of items offered including technical literature) etc., should be attached to the offer. Spare/Tool required as per PTS to be included in scope along with cost.	
	b) Materials offered shall conform to Hooghly CSL specifications. c) Material data sheet should be submitted along with the offer. d) Supplier should be confirmed the antiware property of the material.	
6.	Packing materials should be eco-friendly.	
7.	Supplier should follow the statutory requirements of product offered.	
8.	Products supplied shall be nontoxic and harmless to health. In case of toxic materials, Materials Safety Data Sheet may be furnished along with the	

	material.	
9.	Taxes and duties, if any, payable extra is to be indicated in the techno commercial part and price part.	
10.	Delivery time required for supplies should be indicated in the offer (including time frame for manufacture, transportation, delivery etc.). Delivery Period: <i>Within 7 days from the date of issuance of PO/LOI.</i> Delivery period shall be clearly indicated in the technical bid. <u>Hooghly CSL reserves the full right to accept/reject any offer based on the delivery period</u> Items to be delivered at following address: Hooghly Cochin Shipyard Ltd (Hooghly CSL), Satyen Bose Road, Danesh Sk. Lane (PO), Nazirgunge, Howrah, West Bengal, PIN -711109	
11.	<u>PAYMENT TERMS:</u> I) . Hooghly CSL payment term is 100% payment with applicable taxes after receipt and acceptance of items/vessel at Hooghly CSL stores after inspection.	
	II) The invoice shall be compliant with GST Law. (ii) GST liability is to be discharged and ensure filing of outward supply details on GSTN portal within timeline prescribed. (Covered under GST Terms and Condition at (B)) (iii) Any debit note/supplementary invoice if any, is to be raised within September month following the respective financial year or filing of annual return by Hooghly CSL, whichever is earlier. (iv) Any loss of tax credit due to the reason attributable to supplier shall be recovered from supplier along with Applicable interest and penalty.	
	III) Payment mode shall be Electronic Clearing System (ECS)/cheque /NEFT/ LC/CAD/TT as mutually agreed in line with above standard payment terms. Variations from standard terms, if any, shall be appropriately loaded for tender comparison purposes for arriving the lowest bid.	
	IV) Payment towards all on account bills shall be normally paid within 30 working days from the date of receipt of error free certified bill by the Officer of Hooghly CSL as far as possible	
	V) Bidders to note that no advance payment will be made by Hooghly CSL against work order issued.	
	VI) The Prices offered should remain firm till the completion of delivery, in case the purchase order is placed with you.	
	VI) Delivery of material at Hooghly CSL store including freight & insurance	

	charges.	
12.	<u>Earnest Money Deposit (EMD):</u> NIL	
13.	<u>a) Security Deposit:</u> i) The successful bidder shall remit a security deposit of 3% of the total order value (excluding taxes, duties etc.) in the form of demand draft drawn in favor of Hooghly Cochin Shipyard Ltd. towards the satisfactory performance of the contract, if an order is placed on them. Alternatively, a Bank Guarantee equivalent to above % of the total order value (excluding taxes, duties) as per Hooghly CSL format from Scheduled Indian bank for Indian supplier can be submitted, if an order is placed towards satisfactory performance of the contract. ii) The Bank Guarantee /DD as above should be valid till 90 days after completion of supplies in terms of SD. (iii) Fixed Deposit Receipt (for equivalent amount of Security Deposit/BG required as per tender) in lieu of bank guarantee is also acceptable. Fixed Deposit Receipt shall be in the name of supplier with lien marked in favor of Hooghly Cochin Shipyard Limited, Kolkata.	
	b) SD to be submitted within 2 weeks of receipt of order from yard.	
	c) Format of bank guarantee along with enquiry to be agreed.	
	d) The above SD is required or applicable only when the total order value (excluding taxes and duties) is Rs.20 lakhs and above.	
	e) If the bidder is not agreeable to submission of SD as per Hooghly CSL general terms and conditions of enquiry, Hooghly CSL reserves the right to reject the offer at our discretion or 3% of total order value (excluding taxes and duties) will be added to the quoted price for tender comparison/ evaluation purpose on case-to-case basis for arriving the lowest bid.	
14.	<u>Risk Purchase:</u> If the supplier fails to supply the items ordered in good quality as per contract specification and fails to deliver within the delivery date or violate any of the terms and conditions of the purchase order, Hooghly CSL shall have the following rights.	
	a. To cancel the order partially or full with 15 days' notice and to forfeit the security deposit, if any.	
	b. To impose tender holiday for the vendor for an appropriate period as decided by Hooghly CSL.	

	c. To initiate alternate procurement action at the risk and cost of the supplier. This clause is applicable only in the case of total order/ contract value (excluding taxes and duties) is Rs.20 lakhs and above (or equivalent foreign currency). Cases of value less than 20 lakhs will be addressed by serving appropriate caution/ warning notice to the firm.	
15.	<u>Liquidated Damage:</u> In case of delay in supply of ordered materials beyond the stipulated delivery period, which is not attributable to Hooghly CSL, supplier is to pay Liquidated Damages (and not by way of penalty) a sum equivalent to ½% (half percent) per week or part of the week of the total basic price of delayed material, subject to a maximum of 10% of the total basic price of delayed material (Total basic price is the order value excluding freight, taxes, other charges etc.). However, LD applicability is without prejudice to Hooghly CSL right to terminate contract for delayed delivery or other actions as per clause above.	
16.	<u>Warranty/Guarantee:</u> a) The consumables so supplied shall be guaranteed for rated performance for a period of at least 18 months from the date of delivery of the materials. b) Furthermore, replaced items shall be guaranteed for 18 months from date of replacement. Replacements during guarantee period to be sent on Duty and all taxes paid basis to location as required by yard/vessel owner with all expenses to supplier account..	
17.	<u>Jurisdiction:</u> All questions, disputes or difference arising under, out of, or in connection with contracts shall be subject to the exclusive jurisdiction of the Courts at Kolkata, West Bengal, India. Alternate dispute resolution mechanism can also be considered.	
18.	<u>Arbitration:</u> (a) Any disputes arising during the period of the contract shall, in the first instance be settled by mutual discussions and negotiations. (b) If any dispute, disagreement or question arising out of or relating to or in consequence of the contract, or to its fulfilment, or the validity of enforcement thereof, cannot be settled mutually or the settlement of which is not herein specifically provided for, then the dispute shall within thirty days from the date either party informs the other in writing that such disputes, disagreement exists, be referred to arbitration. The arbitrators shall be appointed and the arbitration proceedings shall be conducted in accordance with and subject to the Arbitration and Conciliation Act, 1996 (No. 26 of 1996) as amended from time to time and the decision of the Arbitrators shall be final and binding on the	

	parties hereto. The arbitration will be done by a Board comprising one arbitrator nominated by each party, and a mutually agreed Umpire. Each party shall bear its own cost of preparing and presenting its case. The cost of arbitration shall be shared equally by the parties unless the award provides otherwise. Performance under this Contract shall however, continue during arbitration proceedings and no payment due or payable by the parties hereto shall be withheld unless any such payment is or forms a part of the subject matter of arbitration proceedings. (c) Seat & Venue of Arbitration: The seat & venue of arbitration shall be at Kolkata. (d) Language of Arbitration: The Language of arbitration shall be English. Governing Law: The contract shall be governed by Indian Law. (e) In case of disputes, the same will be subjected to the jurisdiction of courts at Kolkata, West Bengal	
19.	<u>Force Majeure condition:</u> Should failure in performance of the contract or part thereof arise from war insurrection, restraint imposed by Government, Act of Legislature or other Statutory Authority or illegal strike, riot, legal lock-out, flood, fire, explosion, act of God or any inevitable or unforeseen event beyond human control which may be construed as reasonable ground for an extension of time, Hooghly CSL may allow such additional time as is mutually agreed, to be justified by the circumstances of the case. The occurrence/cessation of force majeure situation is to be informed with documentary evidence within 15 days from the date of occurrence/ cessation.	
20.	Clarifications, either technical or commercial, should be submitted to points specially asked for only. The opportunity so given should not be used for correcting/changing/amending the data/conditions already submitted with the tender	
21.	<u>PRICING:</u> All applicable taxes, duties if any etc should be included in the rate quoted, unless specified otherwise. Hooghly CSL reserves the right for the deduction of taxes and duties as applicable from the bill or invoice. Bidder should quote prices for delivery of materials at Hooghly CSL store. Address: Hooghly Cochin Shipyard Ltd (Hooghly CSL), Satyen Bose Road, Danesh Sk. Lane (PO), Nazirgunge, Howrah, West Bengal, PIN -711109.	

	Insurance for transit shall be arranged by the vendor.	
	Firm shall quote in INR only	
	Comparison of prices will be in INR only	
22.	Validity: a. Prices should be valid for acceptance for a period of Four months from the date of tender opening.	
	b. No enhancement of rate for whatsoever cause will be allowed once the offer is accepted and an order is placed. Withdrawal of the quotation after it is accepted or failure to make the supply within the stipulated delivery period, will entail cancellation of the order and forfeiture of Earnest Money Deposit/Security deposit, if any and/or risk purchase, without prejudice to other penal actions, including tender holiday after serving show cause notices, as deemed fit.	
23.	Conditional discounts, if any, will not be reckoned for tender evaluation/ comparison purpose. However, if the bidder becomes L1 at original offer, conditional discount shall also be considered.	
24.	Unpriced bid (price bid without price) duly signed is to be submitted along with techno-commercial offer in the price format, provided. Price should be quoted separately for each item shown in the format. In the event price bid is different from the unpriced format already submitted, yard reserves the right to reject the offer at our discretion without any further discussions. Details of optional items, if any, should be indicated under separate heading in the Techno commercial bid and the respective price details should also be given in the price bid. Combining of figures against more than one item and ambiguous clauses will lead to rejection of the bid.	
25.	If, in the price structure quoted for the required material/ item, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected. If there is a discrepancy between words and figures, amount in words of respective figures shall prevail. If the bidder does not agree to the observation of the Hooghly CSL, the tender is liable to be rejected and the same shall be intimated.	
26.	After submission of quotation/price offer no unsolicited correspondence will be entertained.	
27.	Hooghly Cochin Shipyard Limited does not bind itself to accept the lowest or any tender but reserves to itself the right to reject any or all or a part of any tender at its discretion.	

28.	L1 Bidder will be evaluated based on individual cost of the item excluding GST.	
29.	SUB CONTRACTING AND ASSIGNMENT Supplier shall not contract with any subcontractor and/or vendor without the prior written consent of Hooghly CSL. Such consent shall not relieve the Supplier from any of his responsibilities and liabilities under the Purchase Order. In addition, Supplier shall ensure that the terms and conditions of any such contract shall comply with and correspond to the terms and conditions of the Purchase Order.	
30.	<u>General:</u> a. Prior to price bid opening, Hooghly CSL is at liberty to take the credit rating of bidders at our cost on case-to-case basis, and to include the same during the evaluation of the tender.	
	b. Deviations, if any in the techno-commercial offer from that of the tender enquiry in any form should be clearly furnished in a separate document titled as “List of Deviations”, failing which it will be presumed that all the terms and conditions are acceptable.	
	c. The techno-commercial part alone will be opened initially on the due date of tender. The price part will be opened only after evaluation of the Techno commercial part. Date of opening of the price part will be intimated to those firms whose Techno- commercial bids would be acceptable after the evaluation. Suppliers are allowed to depute their authorized representative to be present at the time of opening of Price Bid of their tender only.	
31.	<u>Purchase Order:</u> - a. In the event supplier's offer leads to an agreement to effect supplies, a formal purchase order shall be issued by Hooghly CSL on the basis of agreed terms and conditions of tender.	
	b. Upon placement of order (by post or mail) the supplier shall submit the acknowledgement (i.e., signed and stamped original/ scanned soft copy by mail) as a token of acceptance of order within 7 days. In case Hooghly CSL doesn't receive the above, it will be deemed as accepted.	
32.	<u>INSPECTION:</u> - a) Hooghly CSL reserve the right to inspect the goods after receipt at Hooghly CSL store / prior to dispatch (by Hooghly CSL or Hooghly CSL authorized agency at yard cost). Short supply / Mismatch / Replacement of Defective items / those not meeting agreed / contractual specification/ Items failing during commissioning shall be sent on courier freight prepaid/delivered at Hooghly CSL store.	

	b) Replacements during guarantee period to be sent on Duty and all taxes paid basis to location as required by yard/vessel owner with all expenses to supplier account.	
	c) Defective items, if any, after receipt shall be sent back on cost, carriage, handling and insurance prepaid basis including re-export (wherever desired by supplier) to be arranged by supplier. Defective items shall be returned after receipt of replacement item. Supplier, shall replace all/ part of items as applicable, in case of rejection, within 01(one) week of reporting the defect, without any additional cost to Hooghly CSL. In case the defective materials are not taken back within the said period, Hooghly CSL reserves the right to dispose the same without further intimation.	
	d) The supplier shall compensate Hooghly CSL for loss on account of shortage in quantity and number of pieces received than that indicated in the bill of landing provided the Hooghly CSL's claim is rejected by the insurance due to any fault of supplier. Such claims, if any, shall be supported by recognized surveyors report. The supplier shall also compensate for losses, if any sustained by the Hooghly CSL due to defective packing and/or marking of the goods not in accordance with the terms of contract. The time limits for filing claims under clauses above shall be generally 180 days from the date of complete discharge of goods.	
33.	Hooghly CSL reserves the right to alter, modify the scope of supply at its discretion and in consistent with the policy of the Government of India and statutory bodies under them as applicable to the contract from time to time.	
34.	Hooghly CSL reserves the right to commercially reject the offer if compliance is not issued to General terms and conditions without any further clarification / notice / communication in this regard from M/s. Hooghly Cochin Shipyard Ltd., even though the offer is technically acceptable.	
35.	<u>Goods & Service Tax:</u> (a) Please note the Hooghly CSL GST registered number as 19AAECH3640L1ZD. GST registration is prerequisite for entering into the business with Hooghly CSL. Your firms GST registration shall be indicated. Offers received from GST unregistered suppliers / service providers are liable for rejection. (b) Indicate the applicable rate of GST for services in line with GOI published rate scheduled for services along with SAC. (c) Tax inclusive invoices from the registered service providers are not acceptable. Any corrections / rectifications in the invoice shall be made good through Debit note / Credit note. (d) Bidders are advised to check applicable GST on their own before quoting. Buyer will not take any responsibility in this regard. GST reimbursement will be as per actuals or as per applicable rates (whichever is lower), subject to the maximum of quoted GST %.	

36.	<u>Input Tax Credit:</u> (a) Bidders shall ensure timely delivery of services and submit the tax invoices to Hooghly CSL as per the GST law. In case, GST input tax credit is delayed / denied to Hooghly CSL due to non / delayed receipt of services and / or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or owing to the bidder not paying the taxes to the Government within prescribed time as per the law or any other reasons not attributable to Hooghly CSL and solely attributable to the bidder, the GST amount charged to Hooghly CSL, shall be recoverable from the bidder along with interest levied / liveable and any other penalties on Hooghly CSL and the vendor shall indemnify against all costs to Hooghly CSL, and consequences therefrom. (b) In case bidder delays declaring particulars in respect of any invoice in the GST return required to be filed by such bidder, and GST credit availed by Hooghly CSL is denied or reversed subsequently as per GST law, GST amount paid by Hooghly CSL towards such ITC reversal as per GST law shall be recoverable from vendor / bidder along with interest levied / leviable on Hooghly CSL and any other penalties on Hooghly CSL and the bidder shall hold Hooghly CSL indemnified against all cost and consequences their form. (c) Bidders shall submit the invoices as per the provisions of GST law. The bidder's invoice shall contain the HSN code / SAC and GSTIN number of the bidder and Hooghly CSL as well along with other particulars. The GST charged (IGST / CGST + SGST / UTGST) shall be clearly indicated in the invoice. (d) In case any credit, refund or other benefit is denied or delayed to Hooghly CSL due to any non-compliance of GST legislation such as failure to pay GST to the government (includes late filing of GST return) or due to non-furnishing or furnishing of incorrect or incomplete documents/ information by the bidder or service provider, the bidder or service provider would reimburse the loss to Hooghly CSL or Hooghly CSL may recover the same, but not limited to, the tax loss, interest and penalty. The Bidders should submit the copy of Latest GST Return filed statement/ form in GSTR-3B.	
37.	MSEs, Startups and Make in India: Local Suppliers (Make in India), MSE firms and Start-ups will be eligible for various Relaxation in pre-qualification criteria and other Benefits as per orders promulgated by Government of India. Bidders are advised to refer the details of various Benefits and Relaxations in pre-qualification criteria as published at CSL website (www.cochinshipyard.com) under the Tenders tab.	

Specify Yes / No

Tender condition- Preference to Make in India	
A	Purchase preference in accordance with public procurement (Preference to Make in India Order – 2017) Order from Department of Promotion of Industry and Internal Trade P-45021/2/2017/-B. E-II dt, 04.06.2020 and as amended from time to time shall be applicable as per below
1	In the procurement of all goods/services/works in respect of which there is sufficient local capacity /local competition, only Class I Local suppliers shall be eligible to bid irrespective of purchase value
2	In the procurement of all goods/services /works which are not covered as above and with estimated value of purchase less than Rs 200.0 Crores, only Class I local Suppliers along with Class II local suppliers shall be eligible to bid.
	Purchase preferences for Class I local suppliers
B	In the procurement of goods/works covered under 2 above and which are divisible in nature, Class I local supplier shall be eligible for Purchase preference over Class II / Non local supplier as per following
1	If L1 bid is not a Class I local supplier, 50% of the order quantity shall be awarded to L1. Thereafter the lowest bidder among Class I local supplier will be invited to match the L1 price for the remaining 50% quantity subject to Class I local supplier quoted price falling within 20% margin. Contract for that quantity shall be awarded to such Class I local supplier subject to matching L1 price. In case such lowest eligible Class I local supplier fails to match L1 price or accept less than offered quantity, next higher Class I local supplier within 20% margin shall be invited to match the L1 price for the remaining qty and so on. If some quantity is left uncovered on Class I local supplier, such balance quantity shall be ordered on L1 bidder.
2	For procurements that are not divisible in nature and in procurement of services evaluated on price alone, Class I local supplier shall get purchase preference over Class II/Non local supplier as per below
3	If L1 is not a Class I local supplier, lowest bidder among Class I local supplier will be invited to match L1 price subject to Class I local supplier quoted price falling within 20% of L1 price and contract will be awarded to such Class I local supplier, subject to matching L1 price. In case such lowest eligible Class I local supplier fails to match L1 price, procedure same as para 3 above will be opted. In case none of Class I local suppliers within 20% margin matches L1 price, contract shall be awarded to L1 bidder. The purchase preference as above will be only for Class I local supplier and Class II local supplier will not be eligible for any Purchase preference
C	Local content requirement to categories a supplier as Class I/Class II/Non local supplier shall be as per below. Definition of local content shall be as per order dt 4.6.2020 i.e. amount of value added in India which shall be the total value of the item

	procured (excluding net domestic indirect taxes) minus the value of import content in the item (including all customs duties) as a proportion of total value in percentage.
1	Class I–Local content equal to or greater than 50%
2	Class II–Local content greater than 20%, less than 50%
3	Non-local–Local content less than 20%
D	Declaration of local content
1	Class I local supplier /Class II local supplier at the time of tender shall indicate % of local content and provide self-certification that offered item shall meet the local content requirement for Class I/Class II as applicable including details of locations at which local value addition is made.
2	In case of procurement for a value in excess of Rs 10.0 Crores Class I/Class II local supplier is to provide a certificate from statutory auditor/cost auditor (for companies) /practicing cost accountant/ Chartered accountant (suppliers other than companies) indicating % of local content
3	Verification of the Certificates issued by the bidder shall be carried out by Hooghly CSL on random basis. False declarations will attract actions as stipulated in the order referred, including other actions as permissible by law.
4	Exemption is applicable from provisions of order for purchases with estimated values less than Rs 5.0 lakhs
5	Notwithstanding above, exemptions for meeting local content as per relevant Clause of order dt 4.6.2020 and as amended from time to time shall apply.

Tender conditions for Restriction of bidders sharing land border with India vide Office memorandum dt 23.7.2020 Order - Public Procurement no 1 dt 23.7.2020, Order no 2 dt 23.7.2020 and order no 3 dt 24.7.2020	
A	Requirement of registration
1	Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with competent authority as per C below. In works contracts, including turkey contracts, contractors shall not be allowed to sub contract works to any contractor from a country which shares a land border with India unless such contractor is registered with Competent authority. Relevant certificate to be submitted by bidder from a country which shares land border with India except for bidders to which Govt of India has extended lines of Credit or in which Govt of India has development projects, along with the offer as proof of registration with competent authority, failing which the offer will not be considered. A certificate is to be submitted by the bidder for compliance with the order referred above along with tender documents for consideration of offer (Wordings are as per Clause below). If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for immediate termination and further legal action in accordance with law.
2	Wordings of certificate to be submitted along with tender documents
	I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I hereby certify that this bidder is not from such a country or, if from such a country, has been registered with the competent authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. (Evidence of valid registration by the competent authority shall be attached wherever applicable).
2	Wordings of certificate to be submitted along with tender documents for Works involving possibility of sub-contracting.
	I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries. I certify that this bidder is not from such a country or if from such a country has been registered with the competent authority and will not subcontract any work to a contractor from such countries unless such contractor is registered with the competent authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered (Evidence of valid registration by the competent authority shall be attached wherever applicable)
B	Validity of registration
1	Registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder is validly registered at the time of acceptance /order placement, registration shall not be a relevant consideration during contract execution.

C	Competent authority and Procedure for registration
1	The competent authority for the purpose of registration under the order shall be Registration committee constituted by the Department of Promotion of Industry and Internal Trade (DPIIT). Details of the committee and procedure for registration and restrictions shall be as per Ann I of the Order - Public Procurement no 1 dt 23.7.2020 issued by Ministry of Finance, department of Expenditure.
D	Definition of Bidder and Bidder from a country sharing land border with India
1	Bidder is defined as any person or firm or company including any, member of a consortium or joint venture, every artificial, juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.
2	"Bidder from a country which shares a land border with India" for the purpose of this Order means:- a) An entity incorporated, established or registered in such a country; or b) A subsidiary of an entity incorporated, established or registered in such a country; or c) An entity substantially controlled through entities incorporated, established or registered in such a country; or d) An entity whose beneficial owner is situated in such a country; or e) An Indian (or other) agent of such an entity; or f) A natural person who is a citizen of such a country; or g) A constitution or joint venture where any member of the consortium or joint venture falls under any of the above.
3	Type of business entity (Private Limited Company/ Public Limited Company/ Sole Proprietorship/ One Person Company/ Partnership/ Limited Liability Partnership/ Joint Venture/ Trust/ NGO) In case of incorporated entity - to attach certificate of incorporation
	Beneficial Owners - as defined in the Department of Expenditure Order (Public Procurement No.1) issued vide No. F.No.6/18/2019-PPD dated 23rd July, 2020. Details of all beneficial owners having entitlement of more than 01% of shares or capital or profit to be given, in the format as given in Annexure-8 duly certified by practicing Chartered Account in India.

COMPLIANCE STATEMENT- SPECIAL INSTRUCTIONS FOR TENDERERS AND TECHNICAL SPECIFICATION		PAGE 1 OF 1																											
Tender Name: Supply of Hyd. Oil and Lub. Oil for 40T Tug at Hooghly CSL Nazirgunge Unit Howrah.																													
TENDER NO: HCSL/OPS/SB/TEN/2025/109 dated 24.11.2025																													
We hereby confirm and truly declare that our Offer / Bid No.datedis in full compliance with the documents issued against the Tender No. -----dated -----, except for the deviations listed below: <u>LIST OF DEVIATIONS (Hooghly CSL reserves the right to reject offers with deviations)</u> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Tender Reference & Description</th> <th>Reasons for Deviation/Remarks</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>			Sl. No.	Tender Reference & Description	Reasons for Deviation/Remarks																								
Sl. No.	Tender Reference & Description	Reasons for Deviation/Remarks																											
Name of tenderer: Date: _____ Name & Designation _____ Seal & Signature _____ Seal) _____ (Company _____																													

.....

**BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT/
WARRANTY GUARANTEE**

To
HOOGHLY COCHIN SHIPYARD LTD
(Govt. of India Enterprise,)
Satyen Bose Road,
Danesh SK Lane (PO),
Nazirgunge, Howrah,
West Bengal - 711109.

WHEREAS(Name & Address of Supplier) (hereinafter called " **the Supplier**") has undertaken , in pursuance of Contract.....No.....Dated:.....to execute(Name of Contract and brief description of works)(hereinafter called " **the Contract**").

AND WHEREAS it has been stipulated by **HOOGHLY COCHIN SHIPYARD LTD** (The Buyer – hereinafter called "**Hooghly CSL**") in the said contract that the Supplier shall furnish **Hooghly CSL** with a Bank Guarantee for the sum specified therein as security for compliance with the Supplier's obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier such a Bank Guarantee.

NOWTHEREFORE we.....(Name of the Bank) having its Head Office at.....(Address of Head Office)and acting through its branch office at.....(Address of the executing branch)(hereinafter called" the Bank") hereby affirm that we are the Guarantor and responsible to **Hooghly CSL**, on behalf of the Supplier upto a total of.....(amount of Guarantee) in words).

We, the bank, hereby irrevocably undertake to pay you any amount not exceeding in total the Guarantee Amount upon receipt by us of your demand in writing accompanied by the following documents:

1. Your signed statement certifying that the Supplier is in breach of his obligation(s)under the Contract and the respect in which the Supplier is in breach.
2. Your signed statement certifying that the Supplier has been given a prior written notice by email from you to make good the aforesaid breach and that the Supplier still failed to fulfill the Contract within 30 days of such notice. A copy of such notice given by email to the Supplier shall be attached to the demand for payment.

Any demand for payment should contain your authorized signatures which must be authorized by your bankers or by a notary public.

We, the Bank, further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between **Hooghly CSL** and the Supplier shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification. -We, the Bank, further agree that any change in the constitution of the said contractor or the said bank shall not discharge our liability hereunder.

Notwithstanding anything contained herein:

1. Our liability under this Bank Guarantee shall not exceed(only).
2. This Bank Guarantee shall be valid upto (date)and
3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if **Hooghly CSL** serve upon us a written claim or demand on or before.....(validity date).

Any demand for payment under this guarantee must be received by us at this office during working hours on or before the validity date. Should we receive no claim from you by the validity date, our liability to you will cease and the guarantee will definitely become null and void whether returned to us or not.

Yours truly,

Signature and seal of the

guarantor:.....

Name of

Bank:.....

Address:.....

Date:.....

^{1]}An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract and denominated in respective Dollars / Indian Rupees/Other Currency



HOOGHLY COCHIN SHIPYARD LTD.
(A WHOLLY OWNED SUBSIDIARY
OF COCHIN SHIPYARD LTD.)
HOWRAH – 711109
INDIA

**40 T BOLLARD PULL
ASD TUG**

YARD NO.
01124001,01224002,
01324003 & 01424004

DOC.
No.

PTS-01124001-
HYD OIL-001

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TECHNICAL SPECIFICATION FOR LUBRICATION OIL & HYDRAULIC OIL

1. INTRODUCTION

ISO VG100 & ISO VG 68

The 40 T Bollard Pull Azimuth Stern Drive (ASD) tug vessel shall be designed by Robert Allan Ltd. and built by Hooghly Cochin Shipyards Ltd (HCSL), a wholly owned subsidiary of Cochin Shipyard Ltd. The vessel shall be Twin screw, twin medium speed diesel engine driven azimuth thruster. As a part of this tender yard indents to offload the supply of hydraulic oil of Z-Peller as a package.

2. QUANTITY REQUIREMENT TABLE FOR LUBRICATION OIL FOR Z-PELLER MAIN UNIT:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	APPLICATION	TYPE	VISCOSITY	OILTEST CLASS STANDARD	TOTAL REQUIRED (IN NOS)
1	LUBRICATION OIL FOR Z-PELLER MAIN UNIT	(ANTI-WEAR HYDRAULIC OIL ZINC - FREE TYPE)	ISO VG100	FZG LOAD CARRYING CAPACITY: 11 OR HIGHER	ZP21- REQUIREMENTS- 2000Ltr

3. QUANTITY REQUIREMENT TABLE FOR HYDRAULIC OIL FOR ZP STEERING:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	APPLICATION	TYPE	VISCOSITY	TOTAL REQUIRED (In Nos)
1	HYDRAULIC OIL FOR ZP - STEERING (FOR CLUTCH WITH BRAKE)	ANTI-WEAR HYDRAULIC OIL (ZINC -FREE TYPE)	ISO VG 68	ZP21-REQUIREMENTS 160Ltr



HOOCHLY COCHIN SHIPYARD LTD.
(A WHOLLY OWNED SUBSIDIARY OF COCHIN SHIPYARD LTD.)
HOWRAH – 711109 INDIA

40 T BOLLARD PULL ASD TUG

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ISO VG100 & ISO VG 68

LUBRICATION OIL FOR Z- PELLER

SI.NO	OIL MAKER	RECOMMENDED
1	SHELL	S4 ME 100 (ZINC- FREE HYDRAULIC OIL)
2	EXXON MOBIL	MOBIL DTE EXCEL 100(ZINC- FREE HYDRAULIC OIL)
3	CASTROL(BP)	HYSPIN AWH-M 100(ZINC- FREE HYDRAULIC OIL)
4	Idemitsu Kosan Co.Ltd	Daphne Super Hydro 100A

HYDRAULIC OIL FOR Z- PELLER STEERING

SI.NO	OIL MAKER	RECOMMENDED
1	SHELL	TELLUS S4 ME 68 (ZINC- FREE HYDRAULIC OIL)
2	EXXON MOBIL	MOBIL DTE EXCEL 68 (ZINC- FREE HYDRAULIC OIL)
3	CASTROL(BP)	HYSPIN HLP-AF 68 (ZINC- FREE HYDRAULIC OIL)
4	Idemitsu Kosan Co.Ltd	Daphne Super Hydro 68A
5	Chevron	GST EP 68 GST Oil 68
6	Cosmo Oil Lubricants	Cosmo Superepoc ES68 Cosmo Superepoc UF68
7	ENEOS Corporation	Super Hyland TS68
8	TOTAL	Azolla DZF68



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ISO VG100 & ISO VG 68

4. SCOPE OF SUPPLY FOR LUBRICATION OIL:

- 4.1 The details of the supply lubrication oil shall be type of Anti-wear hydraulic oil (zinc- free type).
- 4.2 The Oil shall comply all existing marine standards regulations and be of Marine Quality Standards ISO VG100.
- 4.3 The oil has to qualify all technical parameters mentioned above and will be finally recommended qualified by M/S NIGATA recommendation list
- 4.4 The lubrication Oil Supplier shall Supply Test Certificate of FZG Load carrying capacity Oil to Shipyard along with the technical offer to the yard on the same day of Supply.

5. SCOPE OF SUPPLY FOR HYDRAULIC OIL:

- 5.1 The details of the supply Hydraulic oil shall be type of Anti-wear hydraulic oil (zinc- free type).
- 5.2 The Oil shall comply all existing marine standards regulations and be of Marine Quality Standards ISO VG 68.
- 5.3 The oil has to qualify all technical parameters mentioned above and will be finally recommended qualified by M/S NIGATA recommendation list

6. GUARANTEE:

The Oil shall be having a valid date of expiry as per a period as mentioned in commercial terms and conditions.

7. DELIVERY DATE:

As per commercial terms.

8. COMPLIANCE:

If the items offered are not conforming to the details given in the specification, the deviation shall be described in detail against the particular clause has to be reverted.

9. Place Of Delivery:

Place of delivery:
Hooghly Cochin Shipyard Limited – Nazirgunge Unit,
Satyen Bose Road, P.O. Danesh Shaikh Lane, P.S. Sankrail, Nazirgunge,
Howrah, West Bengal – 711 109



HOOGHLY COCHIN SHIPYARD LTD.
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HOWRAH – 711109
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TECHNICAL SPECIFICATION FOR [REDACTED] &HYDRAULIC OIL

1. INTRODUCTION

**HYD. OIL
VG68**

The 40 T Bollard Pull Azimuth Stern Drive (ASD) tug vessel shall be designed by Robert Allan Ltd. and built by Hooghly Cochin Shipyards Ltd (HCSL)., a wholly owned subsidiary of Cochin Shipyard Ltd. The vessel shall be Twin screw, twin medium speed diesel engine driven azimuth thruster. As a part of this tender yard indents to offload the supply of hydraulic oil of Anchor Windlass as a package.

2. QUANTITY REQUIREMENT TABLE FOR HYDRAULIC OIL:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	VESSELS OPERATING TEMPERATURE	HYDRAULIC OIL VISCOSITY GRADE	POUR POINT UNDER	MAX. OPERATING TEMP.	TOTAL REQUIRED (IN Litres)
1	-10...+45 °C	VG68	-25 °C	+80 °C	1400L

3. OIL BRAND LIST:

HYDRAULIC OIL		
SI.NO	OIL MAKER	ISO VISCOSITY GRADE
1	MOBIL OIL	UNIVIS N 68
		MOBIL DTE 10 EXCEL 68
2	SHELL	TELLUS S2 M 68
		TELLUS S2 V 68



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HOWRAH – 711109
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3	BP	BARTRAN HV 68	HYD.OIL VG68
		ENERGOL HLP 68	
4	CHEVRON	RANDO HDZ 68	
		CLARITY 68	
5	TOTAL	EQUIVIS ZS 68	
		EQUIVIS AF 68	
6	CASTROL	HYSPIN AWH-M 68	
7	SINOPEC	ZHUOLI L-HV 68	
8	CNPC	KUNLUN L-HV 68	

4. SCOPE OF SUPPLY FOR HYDRAULIC OIL:

- 1.1 The Oil shall comply all existing marine standards regulations and be of Marine Quality Standards ISO VG 68.
- 1.2 The oil has to qualify all technical parameters mentioned above and will be finally by recommended qualified by M/S WRIG Energy Eqpt PTE Ltd.
- 1.3 The Oil supplied has to be of Zinc free type. Vendor shall note the same while making the offer.

5. GUARANTEE:

The Oil shall be having a valid date of expiry as per a period as mentioned in commercial terms and conditions.

6. DELIVERY DATE:

As per commercial terms.



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**TECHNICAL SPECIFICATION FOR COMPRESSOR OIL
FOR STARTING AIR COMPRESSOR**

Compressor Oil
ISO VG100 / SAE 30

1. INTRODUCTION

The 40 T Bollard Pull Azimuth Stern Drive (ASD) tug vessel shall be designed by Robert Allan Ltd. and built by Hooghly Cochin Shipyards Ltd (HCSL)., a wholly owned subsidiary of Cochin Shipyard Ltd. The vessel shall be Twin screw, twin medium speed diesel engine driven azimuth thruster. As a part of this tender yard indents to offload the supply of compressor Oil for Starting Air compressor.

2. QUANTITY REQUIREMENT TABLE FOR COMPRESSOR OIL:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI. NO	APPLICATION	AMBIENT TEMPERATURE	VISCOSITY GRADE	TYPE	TOTAL REQUIRED (IN NOS)
1	compressor Oil for Starting Air compressor.	0°C -55°C	ISO VG100 / SAE 30	ZINC- free type	3 Ltrs

3. COMPRESSOR OIL GRADE FOR ISO VG 100 PARAMETERS:

SI.NO	TYPE	ISO VG 100
1	Viscosity at 40°C	90 – 110 mm ² /s
2	Viscosity at 100°C	9.5-12.5 mm ² /s or Higher
3	Flash point	>240°C
4	Pour point	< -20°C
5	Conradson carbon residue	< 1.5%



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Compressor Oil
ISO VG100 / SAE 30

4. OIL BRAND LIST:

COMPRESSOR OIL FOR STARTING AIR COMPRESSOR		
SI.NO	OIL MAKER	RECOMMENDED
1	Mobil	SAE or VDL
2	Shell	SAE or VDL
3	BP	SAE
4	CASTROL	VDL, Preferably synthetic
5	Chevron/Texaco	SAE or VDL
6	Total	SAE or VDL
7	GULF OIL	VDL, Preferably synthetic
8	IDEMITSU	SAE
9	AGIP	SAE or VDL
10	FUCHS	VDL
11	Sinopec	VDL, Preferably synthetic
12	AVIA	VDL

NOTE: VDL is a designation for a Grade of ISO.

5. SCOPE OF SUPPLY FOR COMPRESSOR OIL FOR STARTING AIR COMPRESSOR:

- 5.1 The Oil shall comply all existing marine standards regulations and be of Marine Quality Standard Grade ISO VG 100/ SAE 30.
- 5.2 The details of the supply compressor oil shall be type of zinc- free type.
- 5.3 The technical parameters for Grade SAE 30 will be recommended finally qualified by M/S Sauer Compressors.
- 5.4 The compressor oil has to qualify all technical parameters mentioned above and will be finally recommended qualified by M/S Sauer Compressors.

6. GUARANTEE:

The Oil shall be having a valid date of expiry as per a period as mentioned in commercial terms and conditions.



HOOGHLY COCHIN SHIPYARD LTD.
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TECHNICAL SPECIFICATION FOR GASOLINE AND MIXING OIL FOR RESCUE BOAT

GASOLINE & MIXING OIL

1. INTRODUCTION

The 40 T Bollard Pull Azimuth Stern Drive (ASD) tug vessel shall be designed by Robert Allan Ltd. and built by Hooghly Cochin Shipyards Ltd (HCSL)., a wholly owned subsidiary of Cochin Shipyard Ltd. The vessel shall be Twin screw, twin medium speed diesel engine driven azimuth thruster. As a part of this tender yard indents to offload the supply of Gasoline and Mixing oil for Rescue boat.

2. QUANTITY REQUIREMENT TABLE FOR GASOLINE FOR RESCUE BOAT:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI. NO	APPLICATION	RECOMMENDED GASOLINE BRAND	OCTANE RATING	TOTAL REQUIRED (IN NOS)
1	GASOLINE FOR RESCUE BOAT	AUTOMOTIVE UNLEADED GASOLINE	87	50L

3. QUANTITY REQUIREMENT TABLE FOR MIXING OIL FOR RESCUE BOAT

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI. NO	APPLICATION	GASOLINE/ OIL RATIO	TOTAL REQUIRED
1	MIXING OIL FOR RESCUE BOAT	50:1 (2%)	1L



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**40 T BOLLARD PULL
ASD TUG**

YARD NO.
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4. BRAND LIST FOR MIXING OIL:

**GASOLINE &
MIXING OIL**

- 4.1 RECOMMENDED OIL: Mercury (or) Quicksilver premium 2- Cycle TC-W3 Outboard Oil.
- 4.2 If Mercury or Quicksilver outboard oil is not available, Recommended brand of 2-cycle Outboard oil that is Certified by NMMA TC-W3.

5. SCOPE OF SUPPLY FOR GASOLINE FOR RESCUE BOAT:

- 5.1 The details of the supply Gasoline shall be type of zinc-free type.
- 5.2 The Gasoline shall comply all existing marine standards regulations and be of Marine Quality Standards.
- 5.3 The Gasoline has to qualify all technical parameters mentioned above and will be finally recommended qualified by M/S Jiangyin Wolong FRP Boat Co Ltd.

6. SCOPE OF SUPPLY FOR MIXING OIL FOR RESCUE BOAT:

- 6.1 The Mixing oil shall comply all existing marine standards regulations and be of Marine Quality Standards.
- 6.2 The Mixing oil has to qualify all technical parameters mentioned above and will be finally recommended qualified by M/S Jiangyin Wolong FRP Boat Co Ltd.

7. GUARANTEE:

The Gasoline and Mixing oil shall be having a valid date of expiry as per a period as mentioned in commercial terms and conditions.

8. DELIVERY DATE:

As per commercial terms.

9. COMPLIANCE:

If the items offered are not conforming to the details given in the specification, the deviation shall be described in detail against the particular clause has to be reverted.

10. PLACE OF DELIVERY:

Hooghly Cochin Shipyard Limited – Nazirgunge Unit,
Satyen Bose Road, P.O. Danesh Shaikh Lane, P.S. Sankrail, Nazirgunge,
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TECHNICAL SPECIFICATION FOR GREASE

GREASE

1. INTRODUCTION

The 40 T Bollard Pull Azimuth Stern Drive (ASD) tug vessel shall be designed by Robert Allan Ltd. and built by Hooghly Cochin Shipyards Ltd (HCSL)., a wholly owned subsidiary of Cochin Shipyard Ltd. The vessel shall be Twin screw, twin medium speed diesel engine driven azimuth thruster. As a part of this tender yard indents to offload the supply of Grease.

2. QUANTITY REQUIREMENT TABLE FOR GREASE:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	VESSELS OPERATING TEMPERATURE	TOTAL REQUIRED (IN Liters)	Grade	Thickener Type
1	5°C TO 40°C	17L	NLGI Grade 3	Lithium

3. GREASE BRAND LIST:

CASTROL	SPHEEROL
MOBIL	MOBILUX EP3
SHELL	GADUS S2V 220 3
TOTAL	GERAN WR 3

4. SCOPE OF SUPPLY FOR GREASE:

- 1.1 The grease shall be suitable to operate within the specified temperature range.
- 1.2 The grease has to qualify all technical parameters mentioned above and will be finally by recommended qualified by M/S W-RIG Energy Equipment PTE Ltd.

5. GUARANTEE:

The Grease shall be having a valid date of expiry as per a period as mentioned in commercial terms and conditions.



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**TECHNICAL SPECIFICATION FOR GREASE
FOR UNIVERSAL JOINT
& INTERMEDIATE SHAFT BEARING**

GREASE

1. INTRODUCTION

The 40 T Bollard Pull Azimuth Stern Drive (ASD) tug vessel shall be designed by Robert Allan Ltd. and built by Hooghly Cochin Shipyards Ltd (HCSL)., a wholly owned subsidiary of Cochin Shipyard Ltd. The vessel shall be Twin screw, twin medium speed diesel engine driven azimuth thruster. As a part of this tender yard indents to offload the supply of Grease for Universal Joint and Intermediate shaft bearing.

2. QUANTITY REQUIREMENT TABLE FOR GREASE FOR UNIVERSAL JOINT:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	APPLICATION	VISCOSITY GRADE	THICKENER TYPE	DROPPING POINT	TOTAL REQUIRED (IN NOS)
1	Grease for Universal Joint	NLGI 2	Lithium Soap base type	182°C	1,680 CC

3. QUANTITY REQUIREMENT TABLE FOR GREASE FOR INTERMEDIATE SHAFT BEARING:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	APPLICATION	VISCOSITY GRADE	THICKENER TYPE	DROPPING POINT	TOTAL REQUIRED (IN NOS)
1	Grease for Intermediate shaft bearing.	NLGI 2	Lithium Soap base type	230°C	6 KG



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4. GREASE BRAND LIST:

GREASE FOR UNIVERSAL JOINT		
SI.NO	MAKER	RECOMMENDED
1	ENEOS Corporation	Epinoc Grease AP (N) 2
2	EXXON MOBIL	Mobilux EP 2 Or Mobilgrease XHP222-2
3	SHELL	Alvania EP Grease 2
4	Castrol (BP)	SPHEEROL AP 2 Or SPHEEROL EPL 2
5	Idemitsu Kosan Co Ltd.	Daphne Eponex Grease SR 2
6	Chevron	MULTIFAK EP 2
7	TOTAL	MULTIS EP 2
8	COSMO Oil lubricants Co Ltd.	COSMO Grease DYNAMAX EP 2

5. SCOPE OF SUPPLY FOR GREASE FOR UNIVERSAL JOINT:

- 5.1 The Grease shall comply all existing marine standards regulations and be of Marine Quality Standard Grade NLGI 2.
- 5.2 For Universal Joint the lower limit °C is ≤ -20 and the upper Limit °C is ≤ 110 .
- 5.3 No other brand other than the, mentioned is allowed for Grease for Universal Joint.
- 5.4 The Grease for Universal Joint has to qualify all technical parameters mentioned above and will be finally recommended qualified by M/S Niigata / IHI Power Systems.

6. SCOPE OF SUPPLY FOR GREASE FOR INTERMEDIATE SHAFT BEARING:

- 6.1 The Grease shall comply all existing marine standards regulations and be of Marine Quality Standard Grade NLGI 2.
- 6.2 Any Grease Brand for Grade NLGI 2 is acceptable for Intermediate shaft bearing.
- 6.3 For Intermediate shaft bearing the lower limit is ≤ -20 °C and the upper Limit is ≤ 120 °C.
- 6.4 The Grease for Intermediate shaft bearing has to qualify all technical parameters mentioned above and will be finally recommended qualified by M/S Niigata / IHI Power Systems.



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TECHNICAL SPECIFICATION FOR HYDRAULIC OIL & LUBRICATION OIL

**HYD. OIL & LUB. OIL
FOR FIFI**

1. INTRODUCTION

The 40 T Bollard Pull Azimuth Stern Drive (ASD) tug vessel shall be designed by Robert Allan Ltd. and built by Hooghly Cochin Shipyards Ltd (HCSL)., a wholly owned subsidiary of Cochin Shipyard Ltd. The vessel shall be Twin screw, twin medium speed diesel engine driven azimuth thruster. As a part of this tender yard indents to offload the supply of hydraulic oil for FiFi control cabinets and Lubricating Oil for FiFi pump clutch.

2. QUANTITY REQUIREMENT TABLE FOR HYDRAULIC OIL FOR FIFI CONTROL CABINETS:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	APPLICATION	TYPE	VISCOSITY	TOTAL REQUIRED (IN NOS)
1	Hydraulic oil for FiFi control cabinets	Anti-wear hydraulic oil zinc -free type.	ISO VG 32	13Ltrs

3. QUANTITY REQUIREMENT TABLE FOR LUBRICATION OIL FOR FIFI PUMP CLUTCH:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	APPLICATION	TYPE	VISCOSITY	OILTEST CLASS STANDARD	TOTAL REQUIRED (In Nos)
1	Lubricating Oil for FiFi pump clutch	Anti-wear (zinc -free type)	ISO VG 68	FZG class 10 – 11	40Ltrs



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4. OIL BRAND LIST FOR LUBRICATION OIL:

**HYD. OIL & LUB. OIL
FOR FIFI**

LUBRICATION OIL FOR FIFI PUMP CLUTCH		
SI.NO	OIL MAKER	RECOMMENDED
1	MOBIL	MOBIL Gear 626 (ISO VG 68).
2	CASTROL	CASTROL ALPHA ZN 68 (or) HYSPIN AWS 68
3	SHELL	SHELL Morlina 68.

5. SCOPE OF SUPPLY FOR HYDRAULIC OIL FOR FIFI CONTROL CABINETS:

- 4.1 The details of the supply Hydraulic oil shall be type of Anti-wear hydraulic oil (Zinc-free type).
- 4.2 The Oil shall comply all existing marine standards regulations and be of Marine Quality Standards ISO VG 32.
- 4.3 Any Hydraulic Oil Brand for ISO VG 32 is acceptable.
- 4.4 The oil has to qualify all technical parameters mentioned above and will be finally recommended qualified by M/S Samvin (Jaison).

6. SCOPE OF SUPPLY FOR LUBRICATION OIL FOR FIFI PUMP CLUTCH:

- 5.1 The details of the supply lubrication oil shall be type of Anti-wear oil (zinc- free type) with none or little additives.
- 5.2 The Oil shall comply all existing marine standards regulations and be of Marine Quality Standards ISO VG 68.
- 5.3 The oil has to qualify all technical parameters mentioned above and will be finally recommended qualified by Samvin (Jaison) recommendation list.
- 5.4 The lubrication Oil Supplier shall Supply Test Certificate of FZG Load carrying capacity Oil to Shipyard along with the technical offer to the yard on the same day of Supply.

7. GUARANTEE:

The Hydraulic Oil and Lubrication Oil shall be having a valid date of expiry as per a period as mentioned in commercial terms and conditions.



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**TECHNICAL SPECIFICATION FOR DIESEL OIL DIESEL OIL FOR ME
FOR MAIN ENGINE**

1. INTRODUCTION

The 40 T Bollard Pull Azimuth Stern Drive (ASD) tug vessel shall be designed by Robert Allan Ltd. and built by Hooghly Cochin Shipyards Ltd (HCSL)., a wholly owned subsidiary of Cochin Shipyard Ltd. The vessel shall be Twin screw, twin medium speed diesel engine driven azimuth thruster. As a part of this tender yard indents to offload the supply of Diesel Oil for Main engine.

2. QUANTITY REQUIREMENT TABLE FOR DIESEL OIL FOR MAIN ENGINE:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	APPLICATION	CLASSIFIED FUEL OIL	SULPHUR CONTENT %	TOTAL REQUIRED (IN NOS)
1	Diesel oil for Main Engine	DIESEL AA	$S \leq 1.0$	530KG

2.1 The Standard Grade for Diesel oil is ISO 8217(2017) - F-DMA (OR)
ASTM D975, Grade No. 1-D & Grade No. 2-D.

3. OIL BRAND LIST:

3.1 Any Repeated Brand Diesel Oil for Classified fuel oil Grade Diesel AA of
Sulphur ≤ 1.0 is acceptable for Main engine.

4. SCOPE OF SUPPLY FOR DIESEL OIL FOR MAIN ENGINE:

- 4.1 The details of the supply Diesel oil shall be type of zinc-free type and nil Additives.
- 4.2 The Diesel Oil shall comply all existing marine standards regulations and be of Marine Quality Standards.
- 4.3 The Diesel oil has to qualify all technical parameters mentioned above and will be finally recommended qualified by M/S Niigata / IHI Power Systems.

5. GUARANTEE:

The Diesel Oil shall be having a valid date of expiry as per a period as mentioned in commercial terms and conditions.



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**TECHNICAL SPECIFICATION FOR GEAR OIL GEAR OIL FOR DAVIT
FOR REDUCTION BOX OF DAVIT**

1. INTRODUCTION

The 40 T Bollard Pull Azimuth Stern Drive (ASD) tug vessel shall be designed by Robert Allan Ltd. and built by Hooghly Cochin Shipyards Ltd (HCSL)., a wholly owned subsidiary of Cochin Shipyard Ltd. The vessel shall be Twin screw, twin medium speed diesel engine driven azimuth thruster. As a part of this tender yard indents to offload the supply of Gear Oil for reduction box of Davit.

2. QUANTITY REQUIREMENT TABLE FOR GEAR OIL FOR REDUCTION BOX OF DAVIT:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	APPLICATION	TYPE	VISCOSITY	TOTAL REQUIRED (IN NOS)
1	GEAR OIL FOR REDUCTION BOX FOR DAVIT	ZINC-FREE TYPE	ISO VG 68	30 Litres

3. OIL BRAND LIST:

GEAR OIL FOR REDUCTION BOX		
SI.NO	OIL MAKER	RECOMMENDED
1	EXXON MOBIL	MOBIL GEAR XP 68
2	SHELL	Omala S2 G 68
3	CASTROL	Alpha SP 68
4	BP	ENERGOL GR-XP 68
5	ESSO	EP-68



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GEAR OIL FOR DAVIT

4. SCOPE OF SUPPLY FOR GEAR OIL FOR REDUCTION BOX OF DAVIT:

- 4.1 The details of the supply Gear oil shall be type of zinc-free type. Vendor shall note the same while making the offer.
- 4.2 The Oil shall comply all existing marine standards regulations and be of Marine Quality Standards ISO VG 68.
- 4.3 The oil has to qualify all technical parameters mentioned above and will be finally recommended qualified by M/S Jiangyin Wolong FRP Boat Co Ltd.

5. GUARANTEE:

The Oil shall be having a valid date of expiry as per a period as mentioned in commercial terms and conditions.

6. DELIVERY DATE:

As per commercial terms.

7. COMPLIANCE:

If the items offered are not conforming to the details given in the specification, the deviation shall be described in detail against the particular clause has to be reverted.

8. PLACE OF DELIVERY:

Hooghly Cochin Shipyard Limited – Nazirgunge Unit,
Satyen Bose Road, P.O. Danesh Shaikh Lane, P.S. Sankrail, Nazirgunge,
Howrah, West Bengal – 711109.



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**TECHNICAL SPECIFICATION FOR LUBRICATION OIL
FOR MAIN ENGINE**

LUB. OIL FOR ME

1. INTRODUCTION

The 40 T Bollard Pull Azimuth Stern Drive (ASD) tug vessel shall be designed by Robert Allan Ltd. and built by Hooghly Cochin Shipyards Ltd (HCSL)., a wholly owned subsidiary of Cochin Shipyard Ltd. The vessel shall be Twin screw, twin medium speed diesel engine driven azimuth thruster. As a part of this tender yard indents to offload the supply of Lubrication oil for Main engine.

2. QUANTITY REQUIREMENT TABLE FOR LUBRICATION OIL FOR MAIN ENGINE:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	APPLICATION	TYPE	VISCOSITY GRADE	TOTAL REQUIRED (IN NOS)
1	Lubrication Oil for Main Engine	Anti-wear zinc -free type.	SAE 40	1,680 Ltrs

3. RECOMMENDED BRAND LIST:

LUBRICATION OIL FOR MAIN ENGINE				
SI.NO	OIL MAKER	TBN 15	TBN 20	TBN 25
1	Idemitsu kosan Co. Ltd	-	Daphne Marine Oil SW 40 (20)	Daphne Marine Oil MV 40 (25)
2	Shell	-	Argina S2 40 (20)	-
3	Exxon Mobil	Mobil Gard 412 (15)	Mobil Gard M 420(20)	-
4	Chevron	-	Taro 20 DP 40 (20)	-
5	Castrol (BP)	MHP 154 (15)	TLX Plux 204 (20)	-
6	TOTAL	Disola M4015 (15)	Disola M4020 (20) or Aurelia TI 4020 (20)	-
7	INDIAN OIL	-	Servo Marine C 204 (20)	-
8	PETRON Corporation	Petromar 1540 (15)	Petromar 2040 (20)	-
9	PERTAMINA	-	SALYX 420 (20)	-



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LUB. OIL FOR ME

4. SCOPE OF SUPPLY FOR LUBRICATION OIL FOR MAIN ENGINE:

- 5.1 The details of the supply lubrication oil shall be type of Anti-wear zinc- free type and Nil Additives.
- 5.2 The Oil shall comply all existing marine standards regulations and be of Marine Quality Standards SAE 40.
- 5.3 No other brand other than the, mentioned is allowed for main Engine.
- 5.4 The oil has to qualify all technical parameters mentioned above and will be finally recommended qualified by M/S Niigata / IHI Power Systems.

5. GUARANTEE:

The Lubrication Oil shall be having a valid date of expiry as per a period as mentioned in commercial terms and conditions.

6. DELIVERY DATE:

As per commercial terms.

7. COMPLIANCE:

If the items offered are not conforming to the details given in the specification, the deviation shall be described in detail against the particular clause has to be reverted.

8. PLACE OF DELIVERY:

Hooghly Cochin Shipyard Limited – Nazirgunge Unit,
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TECHNICAL SPECIFICATION FOR LUBRICATION OIL & COOLANT FOR MAIN DG **LUB. OIL & COOLANT FOR DG**

1. INTRODUCTION

The 40 T Bollard Pull Azimuth Stern Drive (ASD) tug vessel shall be designed by Robert Allan Ltd. and built by Hooghly Cochin Shipyards Ltd (HCSL)., a wholly owned subsidiary of Cochin Shipyard Ltd. The vessel shall be Twin screw, twin medium speed diesel engine driven azimuth thruster. As a part of this tender yard indents to offload the supply of Lubrication oil and Coolant for main DG.

2. QUANTITY REQUIREMENT TABLE FOR LUBRICATION OIL FOR MAIN DG:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	APPLICATION	TYPE	VISCOSITY	Ambient temp (°C)	TOTAL REQUIRED (IN NOS)
1	Lubrication Oil for Main DG	Anti-wear zinc -free type.	SAE 15W 40	-10 to +55	36Ltrs.

3. QUANTITY REQUIREMENT TABLE FOR COOLANT FOR MAIN DG:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	APPLICATION	TOTAL REQUIRED (In Nos)
1	Coolant for main DG.	30Ltrs



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4. RECOMMENDED BRAND LIST:

**LUB. OIL & COOLANT
FOR DG**

SI.NO	Application	Manufacturer Name	Recommended Brand
1	Lubrication Oil for Main DG	Greaves Cotton	Greaves Maxtherm
2	Coolant for Main DG	Greaves Cotton	Greaves Maxtherm

5. SCOPE OF SUPPLY FOR LUBRICATION OIL FOR MAIN DG:

- 5.1 The details of the supply lubrication oil shall be type of Anti-wear zinc- free type.
- 5.2 The Oil shall comply all existing marine standards regulations and be of Marine Quality Standards SAE 15W 40.
- 5.3 No other brand other than the, mentioned is allowed for main DG.
- 5.4 The oil has to qualify all technical parameters mentioned above and will be finally recommended qualified by M/S Greaves Cotton (Sigma Power Control Systems).

6. SCOPE OF SUPPLY FOR COOLANT FOR MAIN DG:

- 6.1 The coolant shall comply all existing marine standards regulations and be of Marine Quality Standards.
- 6.2 No other brand other than the, mentioned is allowed for main DG.
- 6.3 The Coolant has to qualify all technical parameters mentioned above and will be finally recommended qualified by M/S Greaves Cotton (Sigma Power Control Systems).

7. GUARANTEE:

The Lubrication Oil and coolant shall be having a valid date of expiry as per a period as mentioned in commercial terms and conditions.

8. DELIVERY DATE:

As per commercial terms.

9. COMPLIANCE:

If the items offered are not conforming to the details given in the specification, the deviation shall be described in detail against the particular clause has to be reverted.

10. PLACE OF DELIVERY:

Hooghly Cochin Shipyard Limited – Nazirgunge Unit,
Satyen Bose Road, P.O. Danesh Shaikh Lane, P.S. Sankrail, Nazirgunge,
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Chlorination & Dechlorination Agent

**TECHNICAL SPECIFICATION FOR STP
FOR CHLORINATION AGENT - SODIUM HYPOCHLORITE AND
DE-CHLORINATION AGENT - SODIUM BISULPHITE**

1. INTRODUCTION

The 40 T Bollard Pull Azimuth Stern Drive (ASD) tug vessel shall be designed by Robert Allan Ltd. and built by Hooghly Cochin Shipyards Ltd (HCSL)., a wholly owned subsidiary of Cochin Shipyard Ltd. The vessel shall be Twin screw, twin medium speed diesel engine driven azimuth thruster. As a part of this tender yard indents to offload the supply of Chlorination Agent - B18013, Sodium Hypochlorite 14 - 15% and De-Chlorination Agent - B18014 Sodium Bisulphite 12%.

2. QUANTITY REQUIREMENT TABLE FOR CHLORINATION AGENT:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

Sl. NO	APPLICATION	TRADE NAME	TYPE OF PRODUCT	FORMULA	SYNONYMS	TOTAL REQUIRED (IN NOS)
1	STP FOR CHLORINATION AGENT	B18013, SODIUM HYPOCHLORITE 14 - 15%	AQUEOUS SOLUTION	NaClO	Bleach	25 ltrs.

Sl.NO	Name	Product identifier	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limits
1	Sodium Hypochlorite, solution ... % Cl active (Note B)	1.(CAS-No.) 7681-52-9 2.(EC-No.) 231-668-3 3.(EC Index-No.) - 017-011-00-1	1.Skin Corr. 1B, H314 2.Aquatic Acute 1, H400 (M=10) 3.Aquatic Chronic 1, H410	(C >= 5) EUH031



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No.

PTS-01124001-
HYD OIL-005

REV.

00

PAGE.
No.

04/05

Chlorination & Dechlorination Agent

3. QUANTITY REQUIREMENT TABLE FOR DE-CHLORINATION AGENT:

Quantity indicated below is for 01 vessel. Total requirement is for 04 vessels.

SI.NO	APPLICATION	TRADE NAME	TYPE OF PRODUCT	FORMULA	PRODUCT CODE	TOTAL REQUIRED (In Nos)
1	STP FOR DE-CHLORINATION AGENT	B18014, SODIUM BISULPHITE 12%	AQUEOUS SOLUTION	NaHSO ₃	WP 1504	25 ltrs.

SI.NO	Name	Product identifier	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1	Sodium bisulphite 12% (Note B).	1.(CAS-No.) 7631-90-5 2. (EC-No.) 231-548-0 3. (EC Index-No.) 016-064-00-8	1.Acute Tox. 4 (Oral), H302

4. VENDOR DETAILS:

4.1 The vendor details that are recommended by the OEM by M/S Dolphin (Wartsilla).

SI.No	Recommended Vendor Details	OEM Details
1	M/s Chemtex Speciality Limited. Kolkata, India.	M/S Dolphin (Wartsilla).

5. SCOPE OF SUPPLY FOR CHLORINATION AGENT:

5.1 The B18013, Sodium Hypochlorite 14 - 15% shall comply all existing marine standards regulations and be of Marine Quality Standards.

5.2 Product identifier, Classification according to regulation number and specific concentration limits shall comply the above details.

5.3 The MSDS data shall be provide for B18013, Sodium Hypochlorite 14 - 15% by M/s Chemtex Speciality Limited along the offer.

5.4 Conditions for safe storage temperature 15 - 25 °C.



HOOGHLY COCHIN SHIPYARD LTD.
(A WHOLLY OWNED SUBSIDIARY
OF COCHIN SHIPYARD LTD.)
HOWRAH – 711109
INDIA

**40 T BOLLARD PULL
ASD TUG**

YARD NO.
01124001,01224002,
01324003 & 01424004

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5.5 The B18013, Sodium Hypochlorite 14 - 15% has to qualify all technical parameters shall be followed as per the annexure-1 and will be finally qualified by M/S Dolphin (Wartsilla).

5.6 Find the attachment below MSDS for STP at annexure-1.

Chlorination & Dechlorination Agent

6. SCOPE OF SUPPLY FOR DE-CHLORINATION AGENT:

6.1 The B18014 Sodium Bisulphite 12% shall comply all existing marine standards regulations and be of Marine Quality Standards.

6.2 Product identifier, Classification according to regulation number and specific concentration limits shall comply the above details.

6.3 The MSDS data shall be provide for B18014 Sodium Bisulphite 12% by M/s Chemtex Speciality Limited along the offer.

6.4 Conditions for safe storage temperature 10 - 27 °C.

6.5 The B18014 Sodium Bisulphite 12% has to qualify all technical parameters shall be followed as per the annexure-2 and will be finally recommended qualified by M/S Dolphin (Wartsilla).

6.6 Find the attachment below MSDS for STP at annexure-2.

7. GUARANTEE:

B18013, Sodium Hypochlorite 14 - 15% and B18014, Sodium Bisulphite 12% shall be having a valid date of expiry as per a period as mentioned in commercial terms and conditions.

8. DELIVERY DATE:

As per commercial terms.

9. COMPLIANCE:

If the items offered are not conforming to the details given in the specification, the deviation shall be described in detail against the particular clause has to be reverted.

10. PLACE OF DELIVERY:

Hooghly Cochin Shipyard Limited – Nazirgunge Unit,
Satyen Bose Road, P.O. Danesh Shaikh Lane, P.S. Sankrail, Nazirgunge,
Howrah, West Bengal – 711109.

B18013, Sodium Hypochlorite 14 - 15%

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 02/11/2017

Revision date: 01/11/2022

Supersedes: 13/08/2014

Version: 1.5

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Trade name : B18013, Sodium Hypochlorite 14 - 15%
 Type of product : Aqueous solution
 Formula : NaClO
 Synonyms : Bleach
 Product group : Raw material

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
 For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Wärtsilä, Water Systems Ltd
 Fleets Corner
 Poole, BH17 0JT - United Kingdom

1.4. Emergency telephone number

Emergency number : 0044 7973629367

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Corrosive to metals, Category 1 H290
 Skin corrosion/irritation, Category 1B H314
 Hazardous to the aquatic environment — Acute Hazard, Category 1 H400
 Hazardous to the aquatic environment — Chronic Hazard, Category 1 H410

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

May be corrosive to metals. Causes severe skin burns and eye damage. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

GHS09

Signal word (CLP) : Danger

Hazardous ingredients : sodium hypochlorite, solution ... % Cl active

Hazard statements (CLP) : H290 - May be corrosive to metals.
 H314 - Causes severe skin burns and eye damage.
 H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P234 - Keep only in original packaging.
 P260 - Do not breathe mist, vapours, spray.
 P264 - Wash hands thoroughly after handling.
 P273 - Avoid release to the environment.
 P280 - Wear eye protection, protective gloves, protective clothing.
 P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
 P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.
 Rinse skin with water or shower.
 P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a doctor, a POISON CENTER.
P321 - Specific treatment (see supplemental first aid instruction on this label)
P390 - Absorb spillage to prevent material damage.
P391 - Collect spillage.
P405 - Store locked up.
P406 - Store in Polyethylene, corrosive resistant container with a resistant inner liner.
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

EUH-statements : EUH031 - Contact with acids liberates toxic gas.

2.3. Other hazards

PBT: not relevant – no registration required

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sodium hypochlorite, solution ... % Cl active (Note B)	(CAS-No.) 7681-52-9 (EC-No.) 231-668-3 (EC Index-No.) 017-011-00-1	10 - 20	Skin Corr. 1B, H314 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
sodium hydroxide, caustic soda	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6	< 1	Met. Corr. 1, H290 Skin Corr. 1A, H314

Specific concentration limits:

Name	Product identifier	Specific concentration limits
sodium hypochlorite, solution ... % Cl active	(CAS-No.) 7681-52-9 (EC-No.) 231-668-3 (EC Index-No.) 017-011-00-1	(C >= 5) EUH031
sodium hydroxide, caustic soda	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6	(0.5 <= C < 2) Eye Irrit. 2, H319 (0.5 <= C < 2) Skin Irrit. 2, H315 (2 <= C < 5) Skin Corr. 1B, H314 (C >= 5) Skin Corr. 1A, H314

Note B : Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Immediately call a POISON CENTER/doctor. If breathing is difficult, trained personnel should give oxygen.
First-aid measures after skin contact	: Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.
First-aid measures after eye contact	: In case of contact, immediately rinse eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	: Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	: Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	: Irritation of the respiratory tract. Cough. Headache. Risk of lung oedema.
Symptoms/effects after skin contact	: Highly corrosive to skin. May cause burns.
Symptoms/effects after eye contact	: Corrosive to eyes. Serious damage to eyes.

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Symptoms/effects after ingestion : Burns of the upper digestive and respiratory tracts. nausea, vomiting. Possible oesophageal perforation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not flammable. In case of fire, irritating fumes come free.

Hazardous decomposition products in case of fire : Decomposes on exposure to temperature rise: release of toxic and corrosive gases/vapours hydrogen chloride. Chlorine.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Spilled material may present a slipping hazard.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes. Do not breathe vapours, spray, mist.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Small quantities of liquid spill: dilute with an excess of water or neutralize. Collect spillage.

Methods for cleaning up : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect spillage. Store away from other materials. Do not neutralize with acid. Flush contaminated areas with plenty of water.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Provide good ventilation in process area to prevent formation of vapour. Do not breathe vapours, mist, spray. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Direct sunlight. Keep container closed when not in use. Store locked up.

Incompatible products : Strong bases. Strong acids. combustible materials. Ammonia.

Incompatible materials : Sources of ignition. Direct sunlight. Metals.

Storage temperature : 15 - 25 °C

Information on mixed storage : Stow "away from" acids. Stow "away from" ammonium compounds.

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Storage area : Keep away from food, drink and animal feeding stuffs.
Packaging materials : Do not store in corrodable metal. Store in polyethylene, polyvinylchloride.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

sodium hydroxide, caustic soda (1310-73-2)		
United Kingdom	Local name	Sodium hydroxide
United Kingdom	WEL STEL (mg/m³)	2 mg/m³
United Kingdom	Regulatory reference	EH40. HSE

Exposure limit values for the other components

chlorine (7782-50-5)			
EU	Local name	Chlorine	
EU	IOELV STEL (mg/m³)	1.5 mg/m³	
EU	IOELV STEL (ppm)	0.5 ppm	
EU	Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC	
United Kingdom	Local name	Chlorine	
United Kingdom	WEL STEL (mg/m³)	1.5 mg/m³ 15 minutes	
United Kingdom	WEL STEL (ppm)	0.5 ppm 15 minutes	
United Kingdom	Regulatory reference	EH40. HSE	

B18013, Sodium Hypochlorite 14 - 15%	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	3.1 mg/m³
Acute - local effects, inhalation	3.1 mg/m³
Long-term - local effects, dermal	0.5 % in mixture
Long-term - systemic effects, inhalation	1.55 mg/m³
Long-term - local effects, inhalation	1.55 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	3.1 mg/m³
Acute - local effects, inhalation	3.1 mg/m³
Long-term - systemic effects, oral	0.26 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.55 mg/m³
Long-term - local effects, dermal	0.5 % in mixture
Long-term - local effects, inhalation	1.55 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.00021 mg/l
PNEC aqua (marine water)	0.00042 mg/l
PNEC aqua (intermittent, freshwater)	0.00026 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Avoid all unnecessary exposure. Gloves. Protective goggles. Insufficient ventilation: wear respiratory protection.

Materials for protective clothing:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Hand protection:

Wear protective gloves.

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Polyvinylchloride (PVC)	6 (> 480 minutes)	0.5 mm		EN 374

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Reusable gloves	Butyl rubber	6 (> 480 minutes)	0.5 mm		EN 374
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Eye protection:

Chemical goggles or face shield, Safety glasses

Type	Use	Characteristics	Standard
Safety glasses	If there is a risk of liquid being splashed : To protect against splashes from pouring	With side shields	EN 166
Safety goggles	If there is a risk of liquid being splashed : To protect against splashes from pouring	tightly fitting safety goggles	EN 166

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Device	Filter type	Condition	Standard
respirator with combination filter for vapour/particles	Type B - Inorganic gases (hydrogen sulfide, chlorine, hydrogen cyanide), Type P2, Type P3	Short term exposure	EN 136, EN 137



Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Colorless to pale yellow liquid.
Colour	: Colourless. light yellow.
Odour	: chlorine-like.
Odour threshold	: No data available
pH	: > 11
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: -30 - -20 (13 - 16% solution)
Boiling point	: ~ 100 °C (13 - 16% solution)
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: 20 hPa (13 - 16% solution, 20 °C)
Relative vapour density at 20 °C	: > 1
Relative density	: No data available
Density	: 1.2 - 1.3 g/cm³
Relative gas density	: 2.49
Solubility	: completely miscible. (water).
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 3.45 mPa.s (aqueous solution, 15%)

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Explosive properties	: Product is not explosive.
Oxidising properties	: Strong oxidizing agent.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Corrosive vapours.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Highly reactive material. Contact with acids liberates toxic gas.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Hydrogen peroxide, Acids, organic materials, Copper, Iron, Nickel, ammonium salts.

10.6. Hazardous decomposition products

Corrosive vapours, fume, Chlorine, sodium chlorate.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

sodium hypochlorite, solution ... % Cl active (7681-52-9)	
LD50 oral rat	> 1100 mg/kg bodyweight
LD50 dermal rabbit	> 20 g/kg
LC50 inhalation rat (ppm)	> 10.5 ppm/1h

Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: > 11
Serious eye damage/irritation	: Serious eye damage, category 1, implicit pH: > 11
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Very toxic to aquatic life with long lasting effects.
Ecology - water	: Very toxic to aquatic life.

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Acute aquatic toxicity : Very toxic to aquatic life.
Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

sodium hypochlorite, solution ... % Cl active (7681-52-9)	
LC50 fish 1	60 µg/l Rainbow trout (<i>Oncorhynchus mykiss</i>)
EC50 Daphnia 1	141 µg/l
NOEC chronic crustacea	0.05 mg/l
NOEC chronic algae	0.0054 mg/l
sodium hydroxide, caustic soda (1310-73-2)	
LC50 fish 1	125 mg/l Western mosquitofish (<i>Gambusia affinis</i>)
EC50 other aquatic organisms 1	40,4 mg/l species of water flea (<i>Ceriodaphnia</i> sp.)

12.2. Persistence and degradability

B18013, Sodium Hypochlorite 14 - 15%	
Persistence and degradability	Biodegradable.

12.3. Bioaccumulative potential

B18013, Sodium Hypochlorite 14 - 15%	
Bioaccumulative potential	Bioaccumulation unlikely.
sodium hydroxide, caustic soda (1310-73-2)	
Bioaccumulative potential	No bioaccumulation.

12.4. Mobility in soil

B18013, Sodium Hypochlorite 14 - 15%	
Ecology - soil	Soluble material/quickly disperses in water.
sodium hydroxide, caustic soda (1310-73-2)	
Ecology - soil	Mobile. Soluble material/quickly disperses in water.

12.5. Results of PBT and vPvB assessment

B18013, Sodium Hypochlorite 14 - 15%	
PBT: not relevant – no registration required	
Component	
sodium hydroxide, caustic soda (1310-73-2)	PBT: not relevant – no registration required

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1791
UN-No. (IMDG) : 1791
UN-No. (IATA) : 1791
UN-No. (ADN) : Not regulated
UN-No. (RID) : Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR) : HYPOCHLORITE SOLUTION
Proper Shipping Name (IMDG) : HYPOCHLORITE SOLUTION
Proper Shipping Name (IATA) : Hypochlorite solution
Proper Shipping Name (ADN) : Not regulated
Proper Shipping Name (RID) : Not regulated
Transport document description (ADR) : UN 1791 HYPOCHLORITE SOLUTION, 8, II, (E), ENVIRONMENTALLY HAZARDOUS

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Transport document description (IMDG) : UN 1791 HYPOCHLORITE SOLUTION, 8, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS

Transport document description (IATA) : UN 1791 Hypochlorite solution, 8, II, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 8

Danger labels (ADR) : 8



IMDG

Transport hazard class(es) (IMDG) : 8

Danger labels (IMDG) : 8



IATA

Transport hazard class(es) (IATA) : 8

Hazard labels (IATA) : 8



ADN

Transport hazard class(es) (ADN) : Not regulated

RID

Transport hazard class(es) (RID) : Not regulated

14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : Not regulated

Packing group (RID) : Not regulated

14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : C9

Special provisions (ADR) : 521

Limited quantities (ADR) : 1I

Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02

Special packing provisions (ADR) : PP10, B5

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Mixed packing provisions (ADR)	: MP15
Portable tank and bulk container instructions (ADR)	: T7
Portable tank and bulk container special provisions (ADR)	: TP2, TP24
Tank code (ADR)	: L4BV(+)
Tank special provisions (ADR)	: TE11
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Hazard identification number (Kemler No.)	: 80
Orange plates	:



Tunnel restriction code (ADR)	: E
EAC code	: 2X

- Transport by sea

Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
Special packing provisions (IMDG)	: PP10
IBC packing instructions (IMDG)	: IBC02
IBC special provisions (IMDG)	: B5
Tank instructions (IMDG)	: T7
Tank special provisions (IMDG)	: TP2, TP24
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: B
Segregation (IMDG)	: SG20
Properties and observations (IMDG)	: Liquid with chlorine odour. In contact with acids, evolves very irritating and corrosive gases. Mildly corrosive to most metals. Causes burns to skin, eyes and mucous membranes.

- Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y840
PCA limited quantity max net quantity (IATA)	: 0.5L
PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L
Special provisions (IATA)	: A3
ERG code (IATA)	: 8L

- Inland waterway transport

Not regulated

- Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

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15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



B18014, Sodium Bisulphite 12%

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 16/11/2017 Revision date: 15/11/2021 Supersedes: 27/06/2016 Version: 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : B18014, Sodium Bisulphite 12%
 Product code : WP 1504
 Type of product : Aqueous solution
 Formula : NaHSO₃

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Wärtsilä, Water Systems Ltd
 Fleets Corner
 Poole, BH17 0JT - United Kingdom

1.4. Emergency telephone number

Emergency number : 0044 7973629367

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH031 - Contact with acids liberates toxic gas.

2.3. Other hazards

PBT: not relevant – no registration required

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sodium hydrogensulphite 12%, sodium bisulphite 12% (Note B)	(CAS-No.) 7631-90-5 (EC-No.) 231-548-0 (EC Index-No.) 016-064-00-8	10 - 20	Acute Tox. 4 (Oral), H302

Note B : Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Full text of H-statements: see section 16

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SECTION 4: First aid measures

4.1. Description of first aid measures

- | | |
|---------------------------------------|---|
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. If symptoms persist, call a physician. |
| First-aid measures after skin contact | : Take off immediately all contaminated clothing. Wash skin with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. |
| First-aid measures after ingestion | : Rinse mouth. Give a slurry of activated charcoal in water to drink. Do not induce vomiting. If symptoms persist, call a physician. Call a poison center or a doctor if you feel unwell. |

4.2. Most important symptoms and effects, both acute and delayed

- | | |
|-------------------------------------|---|
| Symptoms/effects after inhalation | : May cause allergy or asthma symptoms or breathing difficulties if inhaled. Cough. |
| Symptoms/effects after skin contact | : Contact during a long period may cause light irritation. |
| Symptoms/effects after eye contact | : Direct contact with the eyes is likely to be irritating. |
| Symptoms/effects after ingestion | : Ingestion may cause nausea, vomiting and diarrhea. Burning sensation. |

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- | | |
|--------------------------------|--|
| Suitable extinguishing media | : Use extinguishing media appropriate for surrounding fire. Water spray, Dry powder, Foam, Carbon dioxide. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Special hazards arising from the substance or mixture

- | | |
|--|---|
| Fire hazard | : Not flammable. |
| Explosion hazard | : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. |
| Hazardous decomposition products in case of fire | : In case of fire, irritating fumes come free. Sulphur dioxide. |

5.3. Advice for firefighters

- | | |
|--------------------------------|--|
| Firefighting instructions | : Use water spray or fog for cooling exposed containers. |
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- | | |
|----------------------|----------------------------|
| Emergency procedures | : Ventilate spillage area. |
|----------------------|----------------------------|

6.1.2. For emergency responders

- | | |
|----------------------|---|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|---|

6.2. Environmental precautions

Avoid release to the environment. For a large spillage, contain the spillage by bunding.

6.3. Methods and material for containment and cleaning up

- | | |
|-------------------------|---|
| For containment | : Stop leak without risks if possible. |
| Methods for cleaning up | : In case of large spillages: Pump up the product into a suitably labelled spare container. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Wash with sodium carbonate solution (5% Na ₂ CO ₃). Then wash the floor with plenty of water. Recover the cleaning water for later disposal. |
| Other information | : Dispose of materials or solid residues at an authorized site. |

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- | | |
|-------------------------------|---|
| Precautions for safe handling | : Ensure good ventilation of the work station. Wear personal protective equipment. |
| Hygiene measures | : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep only in original container. Keep container tightly closed. Store in a well-ventilated place. Keep cool.
Incompatible products	: Strong acids. Oxidizing agent.
Incompatible materials	: Refer to Section 10 on Incompatible Materials.
Maximum storage period	: 1 year
Storage temperature	: 10 - 27 °C
Information on mixed storage	: Do not store near oxidizing agents or acidic material.
Packaging materials	: Store in Plastic materials, Stainless steel.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

sodium hydrogensulphite 12%, sodium bisulphite 12% (7631-90-5)		
United Kingdom	Local name	Sodium hydrogen sulphite
United Kingdom	WEL TWA (mg/m³)	5 mg/m³ (8 hours)
United Kingdom	Regulatory reference	EH40. HSE

Exposure limit values for the other components

sulphur dioxide (7446-09-5)			
EU	Local name	Sulphur dioxide	
EU	IOELV TWA (mg/m³)	1.3 mg/m³	
EU	IOELV TWA (ppm)	0.5 ppm	
EU	IOELV STEL (mg/m³)	2.7 mg/m³	
EU	IOELV STEL (ppm)	1 ppm	
EU	Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164	

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PNEC (Water)		
PNEC aqua (freshwater)	1.09 mg/l	
PNEC aqua (marine water)	0.11 mg/l	
PNEC (STP)		
PNEC sewage treatment plant	82.5 mg/l	

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Gloves. Protective goggles. Insufficient ventilation: wear respiratory protection.

Materials for protective clothing:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Hand protection:

Protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Chloroprene rubber (CR)	6 (> 480 minutes)	0.5 mm		EN 374
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.35 mm		EN 374
Reusable gloves	Butyl rubber	6 (> 480 minutes)	0.5 mm		EN 374
Reusable gloves	Fluoroelastomer (FKM)	6 (> 480 minutes)	0.4 mm		EN 374
Reusable gloves	Polyvinylchloride (PVC)	6 (> 480 minutes)	0.5 mm		EN 374

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Eye protection:

Standard EN 166 - Personal eye-protection. Safety glasses

Type	Use	Characteristics	Standard
Safety goggles		tightly fitting safety goggles	EN 166

Skin and body protection:

Chemical resistant safety shoes. Wear suitable protective clothing. EN 13034

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Device	Filter type	Condition	Standard
Full face respirator	ABEK	Short term exposure	EN 14387

Personal protective equipment symbol(s):



Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear. light yellow.
Molecular mass	: 104.06 g/mol
Colour	: light yellow.
Odour	: Pungent. Rotten eggs.
Odour threshold	: 3 ppm (sulphur dioxide)
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.074 g/cm ³
Solubility	: Very soluble. Water: 42 %
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

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10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Contact with acids liberates toxic gas.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Acids. oxidizing materials.

10.6. Hazardous decomposition products

Thermal decomposition generates : Sulphur dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

sodium hydrogensulphite 12%, sodium bisulphite 12% (7631-90-5)

LD50 oral rat	> 2000 mg/kg bodyweight (Test compound, dipotassium disulphite $K_2S_2O_5$)
LD50 dermal rat	> 2000 mg/kg bodyweight (Test compound, sodium sulphite)

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Not classified

sodium hydrogensulphite 12%, sodium bisulphite 12% (7631-90-5)

LC50 fish 1	316 mg/l (Golden orfe, using sodium sulphite as test compound)
EC50 Daphnia 1	89 mg/l
EC50 72h algae (1)	48,1 mg/l

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

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PBT: not relevant – no registration required

12.6. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : Not applicable
UN-No. (IMDG) : Not applicable
UN-No. (IATA) : Not applicable
UN-No. (ADN) : Not regulated
UN-No. (RID) : Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable
Proper Shipping Name (ADN) : Not regulated
Proper Shipping Name (RID) : Not regulated

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not regulated

RID

Transport hazard class(es) (RID) : Not regulated

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not regulated
Packing group (RID) : Not regulated

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

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- Inland waterway transport

Not regulated

- Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
H302	Harmful if swallowed.
EUH031	Contact with acids liberates toxic gas.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product